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NOVEMBER, 1936

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THE AMERICAN ENGINEER

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ARTHUR V. SHERIDAN.....Editor
WILLARD S. CONLON.....Business and Advertising Manager

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Telephone: VAnderbilt 3-9152

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THE NATIONAL SOCIETY *of* PROFESSIONAL ENGINEERS

Headquarters
National Press Building
Washington, D. C.

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President
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County Building
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AN APPEAL

To Societies, Chapters and Members

On the Subject of Co-operation

By

The Officers of N. S. P. E.

IN ASSUMING the task of directing the affairs of the National Society of Professional Engineers the officers elected at the recent convention in Washington find themselves confronted with problems and conditions which demand immediate and constant attention. Consideration of the same will be the cause of a special meeting of the officers and directors of the Society to be held in Washington within the next six weeks.

The accomplishment of the aims of the professional movement can only be effected through a maximum of endeavor and responsibility upon the part of the several entities which form the confederation known as the National Society of Professional Engineers. The advancement of membership, the collection of finances, the promotion of legislation, the qualification of persons seeking the right to practice engineering, the protection of the public interest and the participation of the engineer in the affairs of city, county and state are all functions of the State Society and its chapters. The purpose of the National Organization is to coordinate and correlate these endeavors whenever the same are interstate or national. The National Society can urge legislation, it can recommend standards, it can advocate measures of value to public and profession, but it cannot interfere with nor set aside decisions of State agencies in any matters affecting the people or the profession of a particular state.

The framework of N.S.P.E. lends itself readily to a maximum of accomplishment with a minimum of endeavor. However, the effectiveness of a constitution can be vitiated by failure to comply with the intent of the same. In the case of the National Society, the work of the President and Secretary have risen to unbelievable proportions as a result of direct contacts between the Society and chapters or individuals of state organizations. That such practice is, not alone productive of excess and unnecessary work upon the part of the office of the National Society, but, foreign to the intent of the constitution, provocative of misunderstanding and confusion, unfair to the officers and directors of the State Societies and opposed to all principles of effective organization must be apparent to any person who appreciates the structure and the aims of the national professional movement and the relationships of the units which compose the confederation known as N.S.P.E.

It is incumbent upon all concerned, national, state and county organizations, as well as members, to keep constantly in mind that the individual joins a chapter and becomes a member through that chapter. His direct relations should be with and through the chapter, not the state society or the national organization. The chapter in turn deals directly with and through the state body and not the national society. In turn the State Society maintains direct relations with both the national group and its own chapter units. This procedure must be maintained if the effectiveness and value of the National Society is to be advanced. The practice of individuals and chapters addressing themselves directly to the officers of the National Society must be frowned upon if expenditures are to be held to a reasonable figure and the time of national officers made available for promoting the larger aspects of the society's purpose, such as: registration laws in states where none exist, creation of additional state societies, national programs affecting engineers and educational, social, economic and professional activities.

With the above as a justification, the officers of the Society, particularly the president and secretary, appeal to the state organizations, the chapters and the membership at large to bear with them in their endeavors to promote effectiveness and at the same time be fair to the membership. Please do not expect the President to accept invitations to appear whenever called upon. He has a livelihood to earn and the expenses involved in traveling must be kept within reason. The retiring president covered many thousands of miles at a personal cost of thousands of dollars. To him the society and the profession owes a great debt, most of which it can never repay.

The incoming president has already been deluged with requests that did not come through state organizations. Such requests should be addressed to state officers, who can in turn address the National Society. The visit of a national officer, without the state body being aware of the same is not good practice from a viewpoint of effective organization. The State Society should have complete direction and knowledge of all internal affairs. To this end the officers of the National Society will give their fullest support. In turn they would take this means of saying to all members—"Please aid the movement by adhering to the procedure outlined above."

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ANNUAL CONVENTION

Summary of Report On Proceedings

Details to Appear in Subsequent Issues

If Space for Same Is Available

See Also Reports

THE second annual convention of the Society was held at the Hotel Mayflower in Washington, D. C., on October 12th and 13th, with delegates from a dozen states.

EXHIBIT

Prior to and throughout the convention there was a very fine display and exhibit of engineering accomplishments in the larger foyer adjacent to the grand ball-room. Among the exhibitors were the following:

Federal Power Commission, Washington, D. C.

Bureau of Reclamation, Department of the Interior, Washington, D. C.

Emergency Administration of Public Works, Washington, D. C.

Bureau of Yards and Docks, U. S. Navy, Washington, D. C.

Rural Electrification Administration, Washington, D. C.

National Resources Committee, Washington, D. C.

U. S. Shipping Board, Washington, D. C.

Catholic University, School of Engineering and Architecture, Washington, D. C.

MONDAY, OCTOBER 12—A. M.

The convention opened at 9:30 A. M. with an address of welcome from Col. Dan. Sultan, Engineering Commissioner of the District of Columbia, which address was responded to by President Steinman. Secretary Conlon, General Chairman of the Convention, who had introduced Colonel Sultan, then presented the presiding officer of the meeting Engineer D. B. Steinman.

The reports of the several officers of the Society were then presented for incorporation in the minutes. Those of the Secretary and Treasurer indicate that the membership in good standing is 3360 and represents 26 states. The subject of aid to State Societies, as indicated in the report of the Secretary, provoked considerable discussion. The same indicated a consensus of opinion that such aid was justified in emergencies but that each State Society should stand on its own feet as far as possible.

MONDAY, OCTOBER 12—P. M.

The afternoon session, at which Vice-President Battin presided, consisted of a symposium, upon the following: Registration, with Engineers Sachs, Geyer, Steinman and Fox; Engineering Education, with Engineers Riedel, Mendelsohn and Babbitt; the Federal Work Relief Program, with Engineers Arthur J. Bulger, Director P. W. A., Brig. General Geo. B. Pillsbury, Asst. Chief Engr., U.S. Army, Engineer Perry Fellows, Asst. Chief Engineer, W. P. A., H. P. Vermilyea, Asst. Director F. H. A., Donald McNeal, Deputy General Manager, H. O. L. C., Granville E. Dickey, C. C. C., and Engineers J. C. Riedel, C. E. Tilton, C. A. Swaab, T. Battin, Harry E. Harris, Chas. E. Felton and W. Ferber Smith leading the discussions.

The meeting adjourned at 6:00 P. M.

At 7:45 the officers and directors, together with officers and directors of State Societies met in a scheduled meeting of the Board of Directors of the National Society. The Board considered the subject of the American Engineer and the selection of an Editor or an Associate Editor to carry on the work of Editor Sheridan, who was to be inducted as President of the Society on the 13th. It also considered questions concerning the status of surveyors, the inclusion of more cultural requirements in engineering education, the expansion of membership, a revision of certain sections of the Constitution, the relief of the National Society from personal and chapter business affairs and the financial problems of the Society. This meeting adjourned at midnight.

TUESDAY, OCTOBER 13—A. M.

The third session of the convention began at 9:00 A. M. on October 13th, with Vice-President Kelly presiding.

The committee on the 1937 Convention advised that it had received and considered invitations from Chicago, Cleveland, Atlantic City, Buffalo, New York and several smaller cities. Pittsburgh extended an invitation for 1938.

The City of New York supplemented its invitation with letters from the Governor of the State, the Mayor of the City, the New York Board of Trade, the Chamber of Commerce, the Broadway Association, the Fifth Avenue Association, the New York Convention and Visitors Bureau and the West Side Association of Commerce. The appeal was made in person by Engr. John C. Riedel, President of the New York State Society of Professional Engineers. The committee recommended New York as the scene of the 1937 Convention. This recommendation was adopted by the Society.

Chairman W. Ferber Smith of Oklahoma, presented resolutions on the following, all of which were adopted.

1. Expressions of appreciation. (Five resolutions.)

2. Requesting American colleges to consider modification of the curricula of engineering schools to make thorough training in humanities and basic sciences mandatory.

3. Urging states to make registration acts restrict licensing of foreign persons to those countries which accord similar privileges to American citizens.

4. Reiterating the stand of the Society on the advisability of and necessity for a cabinet post of Secretary of Public Works to be filled by a professional engineer. (A partial measure was introduced in last

(*Continued on page* 21)

ENGINEERING CURRICULA

Conditions Affecting The Student

Must Be Considered In Developing the Content

Some Interesting and Practical Essentials

By
HAROLD E. BABBITT

AN INFLUENCE keenly felt in the consideration of the content of a proposed curriculum in engineering is that of the professional engineer, particularly if he be an alumnus in practice who has maintained his interest in educational affairs. It frequently occurs that the experience of the practicing alumnus has led him to feel the need for knowledge of certain subjects in which his own training was deficient. When making recommendations for future curricula he is led to include such subjects in order that those who follow may escape his embarrassments. The general usefulness of the recommended subject or subjects may be hidden by the recollection of painful personal experience.

For example, some have recommended that engineering students should be required to learn a foreign language. Others have opposed the principle. Proponents base their recommendations, among other things, upon the need for linguistic ability. Opponents equally emphatically point to the lack of such need. The existence of the question emphasizes the influence of the alumni and practitioners on engineering education.

Fads of the times are reflected in educational offerings by engineering colleges. Promoters or advocates of special curricula are influential in affecting the content of older curricula and in the institution of new curricula. For example, electrical engineering was, at one time, a part of civil engineering. When first offered the subject of electricity was considered to be a fad of the times. Today, electrical engineering is one of the four principal divisions of the engineering profession. A perusal of recent college catalogs will reveal the recent appearance, for the first time, of the subject of soil mechanics: a fad which promises to become a part of the foundation of a thorough education in civil engineering. Some years ago the efficiency engineer received more publicity than is his lot today. He has either slipped into obscurity or has found a warmer welcome in the field of commerce than in engineering. Instruction in efficiency engineering may be counted as a fad which has passed its zenith.

Ability to distinguish between a passing fad and an approaching fundamental in engineering education is necessary to the development of curricula of value. The fact that this ability is not widely possessed is evidenced by the heterogeneous subjects and curricula to be found in engineering schools. It is probably possible to obtain instruction today in practically every kind of engineering curriculum which has ever been seriously considered.

To live, an engineering curriculum must have students. Without students no unendowed school, curriculum, or course can hope to live. Since the number of students in a curriculum may affect its existence the ability of a curriculum to attract students must be considered as an important factor affecting its contents. The conditions which make curricula and courses popular, crowded, and well considered are diverse, obscure, difficult to understand and, under some circumstances, may appear contradictory. For example, few would consider a four-year curriculum in mechanical engineering as a snap course; yet in many engineering colleges this is the most crowded curriculum. On the other hand the professor conducting the courses in Roman Life, or Appreciation of Art, etc., may be misled by the large number of mechanical engineers who are to be found at his lectures as indicative of the popularity of his courses. In one case the curriculum is chosen because it leads to a livelihood. In the other case the course is chosen because it is considered to be a "snap." It is chosen because it gives college credits for the least amount of work.

Motives which lead students to select curricula and courses must be catered to. Probably the least idealistic, the "bread-and-butter" motive is the most influential. A prospective student must have assurance that the curriculum to be pursued will lead him to a job. If it does not, the curriculum is neglected. Without a living no other objective can be reached. Few are there among our students today who are of the leisure class; pursuing a career in engineering for the value of the education alone. The influence of the bread-and-butter incentive on the selection of a career is indicated by the state of the ministry; one of the few admittedly undermanned professions and a profession in which most of its practitioners can hold to obtain little more than a bare existence.

In making a curriculum attractive the engineering educator cannot be expected to satisfy the student's need for bread and butter through the control of the curriculum. The organized practitioners, the professional engineers, must carry this burden. They, being closest to the needs of industry, of the public, and of other employers of engineers, must provide the information and the facts which will demonstrate that bread-and-butter, and maybe cake, is promised by any particular branch of engineering, either old or new. When the butcher, the baker, the candlestick maker advocate the installation of a curriculum in abattoir management, in bakery design, or in the recovery of grease from garbage, the practical application of this knowledge and the need of industry for trained men in these subjects must be shown as a first prerequisite leading towards the adoption of the curriculum. From this point the educator picks up the responsibility of

(*Continued on page* 22)

FRANCE'S PROBLEMS

Find Parallels In America

Standards of Knowledge Not Methods of Learning Should Be Basis of Qualification for Practice of Engineering

By
J. GALOPIN

Translated from the
"Revue Polytechnique Des Arts Industriels Et Du Génie Civil"
August-September, 1936
With acknowledgments to J. Gatringer and W. A. Herckenrath

THE recent law pertaining to the title of graduate (diplomed) engineer—a law whose usefulness we need not discuss, in this article, at least—decrees that the said title is reserved for students graduated from Government engineering schools or from certain private schools which are recognized by the Government.

It is clear that Government schools, such as the schools of arts and crafts are available to the public generally and that the free schools render service because of their accessibility. But there are others, the uselessness of which strikes even the eye of one not critically minded. We shall speak of these subjects later.

What is important to know, and what we wish to express at this time, is that the above mentioned law practically deprives the employed person of the chance of ever receiving the title of a graduate (diplomed) engineer.

I well know that Article No. 8 of the law of July 10th, 1934, "expects" that those who are self-educated and who have spent five years in an office or factory—two of them in the capacity of an engineer—may take an examination at the National Conservatory of Arts and Crafts which may make it possible for them to receive the coveted title of a graduate (diplomed) engineer.

We do not know who introduced this article in the law—perhaps a humorist—nor how it came to pass. However, the fact remains that this article renders the whole law absolutely undemocratic.

How can an apprentice ever hope to receive an engineer's position such as is a prerequisite to his being admitted to the examination, when there are so many legally graduate (diplomed) engineers, and so many others who are not as yet graduate but who possess certificates indicating that they have practised for years, in the ranks of those seeking positions?

Who can imagine that in order to become a doctor of medicine, one would first have to be a practising physician? I spoke of a humorist (of a joker) to avoid the use of a stronger and more appropriate word.

It seems to me that the workingman will practically never have the opportunity of becoming a graduate (diplomed) engineer.

Nevertheless, anyone can, after passing the examinations, become a bachelor-licensiate, fellow or doctor regardless of age. It is only the man who cannot leave the office or the factory which provides him with a livelihood—it is only the self-educated men (autodidacts), of whom there are many who study after working hours, who from now on will have no opportunity to advance.

In former days the best pupils of evening schools and talented individuals who were able to learn by themselves or through correspondence courses furnished by some schools, were encouraged to follow their studies with tenacity until they had the satisfaction of receiving the parchment which brought them to the attention of employers.

Today—Oh! Progress!—even these small possibilities are abolished. It is true that the National Conservatory of Arts and Crafts offers evening courses in mathematics and applied sciences which qualify one for an engineer's diploma and which are generally sufficiently gradual and direct to have already earned the diploma in question for some employed persons. But one must be living in Paris to be able to attend these courses.

Who prevented the Government from passing legislation, or a decree—admitting every Frenchman, or any foreigner, to the same examinations as are held for the regular pupils of the Conservatory of Arts and Crafts, exactly as students of all kinds are admitted every year to the Baccalaureate examinations (examinations for Bachelor of Arts) in common with pupils of the regular government schools who must be admitted even though they be imbeciles.

And why should not the written part of these examinations be held in every important city? Please note that no program has as yet been worked out for the examinations of self-educated persons who have already performed engineer's duties.

Would it not be easier, let us repeat, to adopt purely and simply for all candidates of engineering the program which is in force at the Conservatory of Arts and Crafts, and to present to all who pass the examinations a temporary certificate for use by those who have not as yet done practical work for a required number of years, without demanding previous experience in the duties of an engineer?

It is incorrect—actually shameful—to prevent employed persons of frequently magnificent intelligence and eminent knowledge from profiting after an examination as to their knowledge, while certain free schools do not hesitate to accept anybody to their classes in the expectation that the control—let us say the benevolent control of the government—will permit the majority of the pupils to depart with an engineer's diploma signed by the Minister (Secretary of Education) in accordance with the ordained form after absolutely worthless studies.

(*Continued on page* 23)

LEGISLATION AND REGISTRATION

Report of Legislative Committee

Covers Recommendations on Many Subjects Such As

Classification, Enforcement, State Societies, Membership, Reciprocity, Etc.

By
SAMUEL I. SACKS

STATUS OF REGISTRATION

THIRTY-FIVE states have registration laws. Seven states have a combined engineer and architect registration act. Twenty-eight states have separate acts. Seven states classify engineers, while twenty-three have unclassified registration. Five states have incomplete registration. Thus, Illinois requires the registration of structural engineers only; California, civil engineers only; and Texas requires registration of surveyors only.

The following states have no registration acts. In certain instances, as indicated, the legislature meets in 1937 and registration acts will be submitted for 1937.

	To Be Submitted in 1937	Submitted in 1936
New Hampshire	x	
Vermont		
Massachusetts		
Rhode Island	x	
Delaware	x	
Maryland		
District of Columbia	x	
Kentucky		x
Georgia	x	
Missouri		
Nebraska		
North Dakota		
Montana		

In many states there has been no change. In certain states there has been marked activity and this activity is briefly outlined.

Maine: In this state the act became effective October, 1935. Maine has about 950 engineers of which 450 have already been licensed. This act follows very closely the Model Act as to engineers only. A roster for 1936 has been published.

Connecticut: Here too, the act was passed in 1935 and is operating excellently. This society has been very active in sponsoring an Engineering Congress and restricting the use of the term "engineer" to licensed engineers only.

New York: This state is not only the largest but is the strictest in enforcement. While there have been no changes in the act, certain provisions began to operate so that after January, 1937, all applicants must take a day and a half written examination. In addition to this, an amendment to the act now provides that no corporation can use the term "engineer" or "engineering." Much has been done by the State Society and our illustrious President of this Society to restrict the use of the term "engineer"; the large railroads having agreed to use the term engineman instead of engineer for their locomotive operators.

Pennsylvania: There have been no changes in this act, but the new board is more active in investigating violations. The State Society is watchful and prevented an act from passage which would only permit architects to certify to plans for buildings submitted to any of our state subdivisions. As a result of this activity, the architects have mended their ways and, together with our State Society, are submitting a bill to the 1937 Legislature whereby only registered architects or engineers will be permitted to submit such plans. All legal periodicals and judges have been circularized in an effort to have them use the term "engineer" properly. The State Board, for the first time in ten years, has published a roster for 1936.

Delaware: While Delaware has no registration act, the City of Wilmington was preparing a building code. Again, almost at the last minute's notice, members of our society from Pennsylvania and those residing in Delaware, protested and were successful in having registered engineers added to this code. Wilmington has also provided for the licensing of registered engineers. As will be noted, an act will be submitted to the Delaware Legislature which closely follows the Model Law. Because of its backing, it is almost certain of passage.

New Jersey: The City of Camden is redrafting its building code. The same problem arose and the engineers were successful in preventing a monopoly by the architects. The State Society is very active and proposes to submit changes to the State Legislature, and particularly to eliminate classifications as to registered engineers.

Ohio: The new act is very effective and the State Society active in restricting the use of the term "engineer."

Kentucky: Word has been received that an act was submitted to the State Legislature. At this writing, your chairman does not know the outcome as to this legislation.

Virginia: The act which has been effective since 1920 is a joint act registering engineers, architects and surveyors. An act is being submitted to re-enact certain sections of this act to make more strict punishment for violations and to require all plans submitted to be signed by a registered engineer or architect.

Florida: The examining board has been reorganized. A conference was to be held on October 9th and 10th to submit revisions to the act which is seventeen years old. Florida has also published a 1936 year book.

(*Continued on page* 23)

PUBLIC RECOGNITION 1935-1936

Report of Committee on Public Relations

Indicates Constant and Concerted Endeavor And Promises Well for Future

By
F. J. SETTE

DURING the past year (1935-1936) the Society has received at least 9,300 lines of publicity from the national press, from 125 different newspapers of 86 cities in 19 states. Below follows Table I showing the number of cities and newspapers in each state in which coverage has been obtained.

Table I—Coverage by States

State	*No. Cities*	*No. Papers*
1. Arkansas	1	1
2. California	1	1
3. Connecticut	4	4
4. Illinois	1	2
5. Kansas	1	2
6. Kentucky	1	2
7. Maryland	3	4
8. Minnesota	2	3
9. Mississippi	1	1
10. Nebraska	1	1
11. New Jersey	6	9
12. New York	15	21
13. Ohio	37	53
14. Oklahoma	3	5
15. Pennsylvania	1	1
16. Rhode Island	1	3
17. Texas	4	9
18. Vermont	1	1
19. Wisconsin	2	2
	86	125
20. Washington, D. C.	1	4
21. Canada	2	2
22. and 23. General		2
	89	133

It should be noted from the foregoing table that the Ohio State Society was very active during the past year in its publicity campaign, obtaining publicity in 37 cities and towns and from 53 newspapers, which is more than double the coverage obtained by its nearest rival, the New York State Society. These two states, namely, Ohio and New York, had publicity in more than half the cities and from more than half the newspapers of the total shown in the table.

It will be well in this report to recapitulate the duties of the Public Relations Committee in order to see whether the publicity obtained has some relation to the objectives of the Society in the public relations field.

Duties of the Public Relations Committee

1. To conduct a planned publicity campaign, with periodical releases to newspapers and magazines, on behalf of the engineering profession.

2. To inform the public on the high qualifications of the engineer, the importance of his services to human progress, the requirements of registration, proper methods of selecting engineering services, and the desirability of appointing engineers in public councils and in high executive and administrative positions.

3. To conduct a publicity and correspondence campaign to stop the misuse and abuse of the designation engineer.

4. To conduct a campaign to secure credit for the engineers in connection with the works designed and executed by them, including specific recognition and credit in published accounts and illustrations, in dedicatory exercises, on name plates, and on commemorative tablets.

5. To conduct a campaign to stimulate worthy engineering projects and public works, and to promote increased demand for engineering services.

6. To conduct a campaign to stimulate engineering leadership in civic problems and public affairs.

7. To correspond and confer with public officials and government agencies on behalf of the profession in matters affecting the interests of the engineer.

8. To plan and arrange public lectures and radio programs to bring the profession's messages before the public.

9. To correct such popular misconceptions and fallacies as "overproduction" and "technological unemployment," and to educate the public on the correct place and attitude of the engineer in national economic problems.

10. To secure for the profession its rightful place in social and economic readjustment, planning and progress.

Table II following shows a number of lines of publicity, photographs, and cartoons during the past year which could be classified as belonging in the category shown.

Table II—Coverage by Items of Duties

Items Under Duties of Public Relations Committee	*Number of Lines*	*Photographs*	*Cartoons*
1	4125	34	0
2	1713	3	0
3	463	1	0
4	0	0	0
5	226	0	0
6	1118	5	0
7	541	1	1
8	497	0	0
9	0	0	0
10	630	0	0
	9313	44	1

It should be noted that item one in the publicity campaign has received approximately one-half the number of lines of the entire coverage, and most of the photo-

(*Continued on page* 24)

FEDERAL RELIEF PROGRAMS

Some Comments and Appraisals

As Submitted to the Convention

By
State Professional Groups
(Synopses follow)

PENNSYLVANIA

THE Federal Government has been engaged in the building of public works for very many years, having in mind a manifold purpose, viz., the providing of such works of a magnitude that could not possibly be provided by individuals or that are interstate in their nature, and could only be provided by the several states affected, taking it for granted that these projects will make for the good of the whole people or for a substantial section thereof, and, at the present time, of providing work for the unemployed.

The attention of the Federal Government, undoubtedly, should be directed to the fact that many of the Federal projects, in one state or other, have been devised without the aid of those engineers who know the local conditions best, viz., the engineers who live in the section of the country where it is intended to make these developments. A knowledge of the local conditions cannot, by any means, be known to others, however capable they may be, and this, I believe, has acted as a retardant in some cases and possibly as a deterrent in others, in the making of these developments. Unfortunately, on many of the projects the Government was forced to proceed without adequate planning. Adequate planning, undoubtedly, requires time, and the best way of which we know of minimizing this is by the employment of local engineers who have had the opportunity of studying these projects, in some instances, over a long term of years in advance.

Speaking of our own State, it has been very difficult to obtain a complete divorcement of politics and governmental administration, and this refers to local, State, and Federal as well. In the words of an outstanding Democrat, whom we all revere, "it is a condition and not a theory which confronts us," and the subject has to be considered in the light of the present-day actual conditions.

Regarding the involving of this Society in politics, it would seem that it is well-nigh impossible for us to "soft pedal" here. We must either be in politics or be entirely out of them, and there does not seem to be any half-way position which we can assume. Of course, this does not mean that we have to be partisan in our politics at all, but surely it is this one thing which we designate "politics" in our country which makes the wheels go round. As we are interested in the wheels going round, we have, to a certain extent, to be interested in the motive power. In my judgment, we should not be in the least backward in assuming a definite position regarding our political status, but it is unfortunate that the engineers in the country, spread as they are throughout its entire expanse, have no weight, politically speaking. We are not in a position, therefore, as some other groups are, to dictate.

I feel that what the Government agencies should do is to make application to the State Planning Boards, where they exist, and these, in turn, should apply to the State Societies of Professional Engineers in each of the states, and be guided largely by the judgment of the latter Societies.

NEW JERSEY

In the short time allotted, the committee appointed to gather data has attempted to cover, geographically, the various sections of the State of New Jersey and engineers of both major political faiths. The symposium of the views encountered follows:

Very little could be learned of the Federal Housing Administration, although there are several projects in New Jersey. The general feeling appears to be that it may aid in giving better living conditions to the occupants and relief to labor to those concerned in the construction.

With the Resettlement Administration, we have no experience or first hand information.

The H. O. L. C. has temporarily saved, repaired and modernized many homes for people who were on the verge of losing them in a real estate market that was at the lowest point.

We believe that the benefit to the professional man was practically nil.

An increasingly evident result has been in the acquiring of these homes by the corporation, and we have been informed by reliable sources that this has reached the rate of approximately forty per cent. These houses are being rented so as to cover their carrying charges, and on an improved market will unquestionably make money for the corporation.

The effect desired, however, has been lost as a large percentage of the owners were only able to carry on for a year or so and setting up a corporation to make money was not one of the aims.

We now come to the two with which we are most familiar, P. W. A. and W. P. A.

In their treatment of some subjects, notably the fixed rates of pay and the regulation of hours there is much similarity. W. P. A. places the professional engineer, architect and men working in these lines on a pay basis of absolute relief in contrast with the sustaining of the highest rates claimed for labor. It is not only not fair, it is not decent, to have the qualified professional man on whom all the worthwhile projects depend for plan and direction, working for a lesser rate than skilled mechanics or artisans.

The P. W. A. has much to be said for it. The projects are usually well worth while. The work provides relief

(*Continued on page* 24)

FLOOD CONTROL ACTIVITIES

Report of the Special Committee

Appointed by National Society of Professional Engineers
To Create and Direct Public Opinion
In Co-operation With Other Agencies

By
HARRY E. HARRIS

SINCE March 28th, 1936, when the Connecticut Society of Professional Engineers started this activity by passing its Resolution on Flood Control and Soil Conservation, appointing their State Committee to follow through and call to the attention of the President, State Governors, United States and Connecticut legislators, progressive editors, leaders in civic matters and others, the public necessity for united endeavor, the work of the professional engineers toward a unified engineering control for each drainage area under a central coordinating engineering authority for the entire country has proceeded rapidly.

The National Committee was formed and initial appointments were made July 2nd by the Board of Directors of the National Society. The said committee consists of the following:

Harry E. Harris, *National Chairman*

Members

Arnold G. Chapman	New York City
Samuel I. Sacks	Philadelphia, Pa.
Victor Gelineau	Newark, N. J.
Dan W. Patton	Tulsa, Okla.
W. D. Tyler	Dante, Va.
L. M. Marx	Washington, D. C.
Frank A. Biberstein	Washington, D. C.
Walter Swanton	Washington, D. C.
M. C. Steuber, *Secretary*	Washington, D. C.
W. C. Burnham, *Alternate*	Oklahoma City, Okla.
Tate Dalrymple, *Temporary Member*	Texas

Presidents, ex officio

David B. Steinman	New York
John W. Dunham	Washington, D. C.
Paul E. Green	Chicago, Ill.
George M. Randolph	Red Bank, N. J.
John C. Riedel	New York City
Perry T. Ford	Columbus, Ohio
M. C. Shibley	Tulsa, Okla.
Solomon M. Swaab	Pennsylvania
Max P. von Homeyer	Austin, Texas
E. M. Hastings	Virginia
J. E. Settle	West Virginia
B. M. Brigman	Kentucky
H. R. Bassett, *Alternate*	Maryland

Among the various governmental and state agencies directly contacted in a cooperative spirit by the Committee were:

National

Department of Agriculture; National Resources Committee; Water Resources Committee; United States Forest Service; Department of the Interior; War Department; Army Engineers; Tennessee Valley Authority; Works Progress Administration; Public Works Administration; Rural Electrical Administration; Senate Committee on Public Lands and Surveys; Section of Engineering, Soil Conservation Service; Division of Silvics, Forest Service; Bureau of Agricultural Engineering; Senate Committee on Finance; Connecticut Valley Authority; National Grange; American Society of Newspaper Editors; Associated Press; United Press; American Engineer; House Judiciary Committee; National Association of Cost Accountants; American Machinist; Southern Power Journal.

State and Local

Connecticut State Planning Board; Vermont State Planning Board; Rhode Island Director of Public Works; New England Regional Planning Commission; New England Council; North Carolina Department of Conservation and Development; Oklahoma Conservation Commission; New Hampshire Water Resources Board; Connecticut Society of Civil Engineers; Connecticut Grangers; Local Granges; American Society of Mechanical Engineers; Engineers Club; Rotary, Kiwanis, Exchange, Lions, Civitan Clubs; Calvert Club; Merit System Association; United Churchmen; American Institute of Architects; Fairfield County Farm Bureau Federation; Board of Civil Engineers; Chamber of Commerce; Massachusetts State Planning Board; Connecticut Society of Public Accountants; Connecticut State Water Commission; Engineering Alumni Associations; Business and Professional Clubs; Connecticut Interstate Waterway Compact Commission; American Medical Society; American Bar Association; Joint Commission on Waterway Pollution.

The Faculties of Yale University, Wesleyan University, Junior College of Connecticut, Connecticut State College, Bridgeport Engineering Institute and the Connecticut Bureau of Vocational Schools:

Association of Power Engineers; Commission of Rivers, Harbors and Bridges; Connecticut Section of A. I. E. E.; Connecticut Section of A. S. C. E.; Connecticut Park and Forest Commission; Fairfield County Agricultural Conservation Commission; North Carolina Society of Engineers.

No attempt has been made to make this list complete nor fully up to date, nor has the high personnel that have been approached in its voluminous correspondence been listed for this report.

In this work approximately 750 personally written letters have been sent out to important people and over 500 replies have been received. Over 9,000 copies of

(*Continued on page* 25)

ITEMS OF GENERAL INTEREST

NEWS, REPORTS, COMMENTS

NATIONAL SOCIETY ACTIVITIES

Correspondents and readers are invited to submit for publication items of interest to the professional Engineer of the country. Such material must reach the Editor prior to the fifth day of each month.

EMPLOYMENT PANACEA FROM OHIO

brings

Caustic Comment from Pennsylvania

by

D. W. BLAKESLEE

The paper by Walter P. Shuette under the above title is said by the Editor of THE AMERICAN ENGINEER to be "interesting and ingenious". It *is* interesting because it indicates some "engineers" still believe in *perpetual motion* or *neutralization of the attraction of gravity*, as by the self-lifting-by-bootstraps method. It is *not* "ingenious" as that term indicates an *engineer* proposal.

It is interesting to note that engineers are becoming interested in their own social-economic welfare—after three-quarters of them were unemployed. The engineers, as a class, have as yet failed to make an engineering approach in the study of their most serious problem. They seem to take the attitude of mind of the Communists: let the group sink to the lowest level, then there will be as a result a revolutionary reaction which will place them in a position of dictatorship!

Engineers must be *ingenious* in their study of social-economics, just as they are in their regular work (when they are employed). Engineers must go to the *root* of the problem even tho they may fear being considered as "radicals". The engineer, better than anyone else, knows that effects are the results of causes.

Before the engineer can permanently remove unemployment, he must investigate the *cause* of unemployment. Otherwise he will be like the bartender who tries continuously to remove the effect with his side towel instead of removing the cause by turning off the spigot.

Engineers, architects and chemists as well as carpenters, hod-carriers and laborers, are unemployed because they cannot sell their services. They cannot sell their services because the purchaser of such services cannot profit by them. He cannot profit by them because he cannot sell what they produce. He cannot sell because the potential purchaser is the engineer and all the rest including the laborer.

In other words, the average citizen cannot satisfy his potential demand for the various forms of wealth (food, clothing, shelter, education, recreation, travel, etc.) because he is "unemployed" (not permitted to create wealth) or because he is permitted to only receive back a small portion of the wealth he has created. Those who are now employed are unable to purchase the things to satisfy their potential demand; the return is growing continuously smaller!

How then, can a "sales tax", paid by those it is supposed to help, result in

(*Continued on page* 19)

AN APPEAL FOR PUBLICITY

From Engineer

JOHN B. WALSH

The world of today presents to us a great panorama of scientific developments but so familiar are we with them, so necessary are they to our mode of living that we accept them as we do the air we breathe or the sunlight that makes our day. We go about our business using them, insensible that for each, someone had a vision, dreamed, worked and sweated for the accomplishment of that vision. Due to his absorption in himself as related to his work and profession the engineer has been unmindful that, by educating the public in engineering, its scope, its limitations, who are engineers, who are not etc., he could raise the standards of his work and profession to an importance it should demand.

The relation of the engineering profession to the public has been indirect. Engineers should get closer to the public in order to be better understood, to have it recognize the important part the engineer occupies and understand how essential his contributions are to its daily life, how utterly dependent upon him it is. The public should also appreciate that the engineer is not an inanimate being, a technical robot, but a real live human being and as such is interested in the humanitarian side of life. The engineer needs but to emphasize that his profession calls for work tending towards the betterment of humanity.

The public should be better informed about engineering in general so as to readily recognize any phase of it when encountered. It should use engineering knowledge more advantageously and consult the engineer in the planning of a great engineering work as well as in the design and construction. It should realize that high grade engineering is not only productive of low costs and longevity of structures but it is the only insurance against future trouble.

We can accomplish all this through the medium of publicity which is the education of the public to think along a prescribed line. Such publicity must be carefully planned and executed to produce good results.

In his endeavor to better serve his fellow man the engineer has improved the agencies of life to such an extent that the things produced originally through engineering ingenuity have become so numerous, so simple to manipulate that they have lost most of their engineering connection to the public. A mechanical device is seldom thought to be akin to engineering.

Perhaps the greatest contribution of the mechanical engineer to the comfort of his fellow man is the automobile. This is a very intricate scientific mechanism developed to the present stage where it

(*Continued on page* 20)

NATIONAL COUNCIL

State Boards Engineering Examiners

Report of Secretary—1935-36

The membership of the National Council of State Boards of Engineering Examiners consists of thirty-five (35) legally constituted State Boards which have a total of over 40,000 registered engineers and surveyors; therefore, the Council is the official national organization of the largest group of legally recognized professional engineers in the country, probably in the world. Since our last meeting four State Boards have joined the Council: Maine, Nevada, Washington and Alabama.

This has been an off year for meetings of State Legislatures and no new registration laws have been passed. A registration bill was introduced in the Kentucky Legislature but due to opposition that developed was not passed and cannot be taken up again until 1938. It is expected that a number of states will adopt the legal registration of engineers next year. Several committees are in communication with the Secretary regarding pending legislation and those in Missouri, Delaware, and Nebraska have already submitted for review and suggestions the proposed laws which they intend presenting to their Legislatures in January, 1937.

The improved business conditions have created more interest in the services available through the Registration Bureau conducted by the Council and the number of applicants will probably increase in the future. The report of the Committee on National Bureau of Engineering Registration will give further details as to this function of the Council.

The Dominion Council of the Associations of Professional Engineers of Canada was organized in February, 1936, but the details of the membership and financing have been completed and therefore the Dominion Council is not yet functioning. The activities proposed are very similar to the objectives of the National Council and are outlined as follows:

(a) To assist the Provincial Associations in securing improved legislation for the better protection and regulation of local professional interests.

(b) To secure the adoption by Provincial Associations of uniform standards of examination and membership.

(c) To arrange for reciprocal privileges between Provincial Associations for the benefit of their members.

(d) To secure harmony of action in all matters affecting common interest, and generally to act in an advisory coordinating capacity to the Provincial Associations.

(e) To negotiate with other organizations whereby the common interests of

(*Continued on page* 20)

STATE ACTIVITIES REPORTED

SOCIETIES OPEN FALL PROGRAMS

The American Engineer acknowledges the contributions of correspondents and intends, as soon as the organization of its editorial staff is completed, to make proper announcements.

Correspondents are urged to forward news items in time for the same to reach the Editor before the fifth of each month.

DISTRICT OF COLUMBIA

Holds First Fall Meeting

The following verbatim report of the September meeting of the District of Columbia Society has been received through the courtesy of Secretary Miles E. Myers.

The first Fall Meeting of the District of Columbia Society of Professional Engineers was held in the Raleigh Hotel, September 21, 1936.

Officers and members of the Society had dinner prior to the meeting and had as their guests two of the speakers of the evening, Hugh H. Bennett, Chief of Soil Conservation Service and Harry E. Harris, Chairman, N.S.P.E. Committee of Flood Control and Soil Conservation.

Engineer Harris gave a short talk, stating that Professional Engineers should interest themselves in all matters beneficial to national and public welfare. With this in mind the Connecticut Society, of which Engineer Harris is President, formed a Flood Control and Soil Conservation Committee. Such committees should be organized in all States and Counties and should be non-political.

Engineer Harris then introduced Engineer Cooke, Administrator of Rural Electrification Administration, who gave a mighty interesting talk as to the future of America if we do not mend our ways. That the present and past tendency of destruction to the country's abundance of ariable soil will have to be changed to conservative treatment of what remains of it. In his opinion we have from 50 to 100 years to mend our ways; if we do not, there will be a fertile area left three times the size of Nebraska and twenty years to get wise to ourselves. It is the Engineer's duty to stop this ruin.

Engineer Cooke stated that there are numerous books in the Congressional Library pertaining to water in pipes but not one single volume on water over fields.

The talk by Engineer Hugh H. Bennett, Chief of Soil Conservation Service, was just packed full of interesting facts and figures put across by him in a most convincing and interesting manner. He had the condition of soil in the United States at his finger tips.

The outstanding facts of his talk were as follows: There were 610,000,000 acres of ariable soil in the United States, of which 100,000,000 have been destroyed. Another 100,000,000 are just about stripped and 100,000,000 more are on their way out. These figures from Engineer Bennett, who has been familiar with soil conditions for twenty-five years, are food for thought. Consider, as he points out, that there are 23,000,000 students in the lower grade schools and 6,000,000 in the upper grade schools, and nothing is taught them regarding flood

(*Continued on page* 17)

PENNSYLVANIA

Harrisburg Chapter

An Engineer week-end get-together, under the auspices of the Harrisburg Chapter took place at Hershey on Sept. 25, 26, 27. The program included discussions of policy, dues, additional chapters and addresses by President Steinman and Vice-President Battin of the National Society of Professional Engineers who had responded to an invitation from the Pennsylvania Society which participated in the program. Vaudeville, Movies, Inspection trips, Golf, a Smoker and other diversions made the occasion one well worth while. The Hershey Park Golf Club housed the visitors.

The following from the Harrisburg Evening News is a press report of the occasion.

"More than 100 professional engineers from Pennsylvania and adjoining states were present again this morning in the Hershey Theater hall to hear the second talk by Dr. David Barnard Steinman, internationally prominent bridge builder and president of the National Association of Professional Engineers.

The New Yorker addressed a like number last evening at the opening dinner meeting of the Pennsylvania Society of Professional Engineers, sponsored by the Harrisburg Chapter, of which Robert Hall Craig, is president. Under his subject, "The Engineer's Contribution to Progress," Doctor Steinman, who has built or supervised the building of many large bridges, declared that "the engineer has contributed more to human comfort, wealth and safety than the members of all other professions combined since the world began."

In his second talk, "The Engineer in Public Service," the speaker said "The public has not yet learned to recognize the full scope of the qualifications and training of the engineer," but that "we may look forward to the day when engineers will be recognized and sought for all of the highest positions on planning, leadership and trust throughout the land."

Not merely a man who limits his work to surveying and drafting or the computation of stresses and strains, the engineer, "by training and experience and by force of the diversity and complexity of the problems to be handled, is and must be an expert on economics, financing, planning, organization and management," Doctor Steinman said.

"Of all professions, engineering is the greatest contributor to economic progress. The engineer has contributed more to human effort, wealth and safety than the members of all other professions combined since the world began. With the aid of the engineer, this Country in

(*Continued on page* 16)

NEW JERSEY

Society Plans Convention

The State Committee of the New Jersey Association of Professional Engineers and Land Surveyors met Oct. 15 in the Alexander Hamilton Hotel, Paterson, New Jersey to outline the program for the State Convention and dinner which will be held in the hotel on Saturday, January 16, 1937.

In addition to the convention and dinner, exhibits and inspection trips are being considered. The latter will be in the form of a visit to the Wright Aeronautical plant, the Wanaque Dam and similar projects. A program of entertainment for the women is also contemplated.

Vincent J. Scanlan, president of the Passaic County Chapter presided over the meeting as chairman. Mayor John V. Hinchliffe was in attendance to assist the committee with its arrangements. The next meeting will be at the call of the chair.

In addition to Mr. Scanlan and the Mayor the following were present: Russell B. Wise, trustee of the State Body; Ernest F. Weeks, secretary of the State Association; H. L. Bickford, Secretary of the Passaic County Chapter; Otto Reiner, divisional engineer for the Public Service; William Floyd, assistant engineer of Passaic County; F. W. Loede, Jr., vice-president of the local chapter and engineer for the Passaic County Park Commission who was named publicity chairman.

The above is from Frederick W. Loede, Jr., Chairman Publicity Committee.

EXECUTIVE BOARD

Minutes of meeting of the Executive Board and Board of Trustees of the New Jersey Association of Professional Engineers and Land Surveyors held at the Hotel Douglas, Newark, N. J. on Wednesday, September 23rd, 1936.

Those present included President George F. Randolph, 2nd Vice-President Beale Schmucker, Engrs. Hamilton, Sleeper, Tilton, Goodkind, Johnson, Pray, Jurnecka and Weeks.

The meeting was opened by the President at 8:30 P.M.

The Minutes of the August 18th meeting were accepted as made up and sent out by the Secretary to each member of the Board and were not read.

The following Constitution acceptance letter from the N.S.P.E. was read by the Secretary.

Acceptance of Constitution
of
The National Society of Professional Engineers
by
New Jersey Society of Professional Engineers

1. *Preamble*: This Society subscribes

(*Continued on page* 17)

PENNSYLVANIA

(*Continued from page* 15)

the past 150 years has produced and distributed more wealth than the entire world produced in all the centuries preceding.

"Engineering is the profession that most enriches humanity," he said in conclusion. "That community or nation that best develops and applies the brain power and inventive genius of its engineers will be most prosperous. The outstanding value and supreme importance of the engineer's contribution to civilization and human progress should be recognized."

SOCIETY TO ENROLL

Applicants for Work

In accordance with the aims of the Pennsylvania Society and the National Society of Professional Engineers to advance the interests of the Registered Professional Engineer individually and the Engineering Profession as a whole, we are enclosing two forms with the request that you, as a Registered Professional Engineer, actively cooperate.

From present indications we are confident that opportunities for Professional Engineers are on the increase.

(*Continued on page* 17)

PENNSYLVANIA SOCIETY OF PROFESSIONAL ENGINEERS

INQUIRIES RECEIVED FOR ENGINEERS

Position to be filled by ..... (Date) Inquiry Received ..... (Date)

Organization or Firm ..... Name

..... Address ..... Telephone Number

Person to Interview .....

.....

Class of Engineer desired and duties to be performed

Inquiry Referred to ..... Name ..... Address

.....

.....

Position filled by ..... Name ..... Address

Date ..... Prof. Eng'r..... Member.....

PENNSYLVANIA SOCIETY OF REGISTERED PROFESSIONAL ENGINEERS

APPLICATION FOR POSITION AND RECORD OF PROFESSIONAL EXPERIENCE

Name ..... Address ..... Number and Street

..... Post Office ..... County ..... State ..... 'Phone No. ..... Registration No. ..... Branch of Eng'g

..... Present Business Address ..... Name of Company Employed by ..... 'Phone No.

Position or Occupation desired or acceptable .....

.....

	EDUCATION NAME AND LOCATION	GRADUATED YES OR NO—YEAR	COURSE	DECREE RECEIVED
High School				
Preparatory School				
College or University				

ENGINEERING EXPERIENCE (Record in Chronological order)

PERIOD FROM	PERIOD TO	YEARS	ORGANIZATION OR FIRM AND LOCATION	TITLE	DUTIES	SALARY	REASON FOR LEAVING

Signature .....

NEW YORK

License Examinations

Of the nine hundred and forty-two candidates who took the June 1936 examinations given by the New York State Board of Examiners for Professional Engineers, seven hundred and sixty-nine passed and received their licenses, fifty-three failed, and one hundred and twenty were conditioned in one subject.

The next examinations in New York State will be given on January twenty-fifth to twenty-seventh, at Albany, Buffalo, New York City and Syracuse. Those desiring to be admitted to the January examinations must file application with the State Education Department at Albany before November first.

N.S.P.E. Chooses N. Y. Man for President

The recent election of Mr. Arthur V. Sheridan to the presidency of the National Society of Professional Engineers, at the convention held in Washington, D. C. is heralded by all who know him, as an event which will afford even greater opportunity for his tireless efforts for the promotion of the engineering profession.

BRONX COUNTY

Bronx County Chapter held an open meeting in the Bronx County Building on October 1, 1936, at which the proposed new City Charter was discussed. Mr. Joseph F. Lamb, Chairman of the Arrangements Committee presided. The principal speakers were the Hon. Cyrus C. Miller former President of the Borough of The Bronx and Prof. Joseph D. McGoldrick, former Comptroller of the City of New York. There were a number of other speakers who represented numerous civic and professional organizations throughout The Borough.

Questions relative to the subject were submitted by those present and referred by the chairman to the principal speakers to answer.

It is felt that the discussion resulted in a better understanding of this most important and complex document of municipal government.

WESTCHESTER COUNTY

Mr. Francis Roderick MacLeay's classes in structural engineering, which are being held on Thursday evenings at the Elks Club in Mt. Vernon, continue to receive the enthusiastic attendance of those who are preparing to take the license examinations. The Chapter's Educational Committee has demonstrated its approval by paying several visits to the lectures.

SUFFOLK AND NASSAU COUNTIES

A joint meeting of the Nassau and Suffolk County Chapters, was held at the Hotel Huntington, with Mr. Rodney E. Cook presiding as chairman. The gathering, which included delegations from both Richmond and Westchester Chapters was addressed by the following speakers: Dr. D. B. Steinman, Prof. John C. Reidel, Mr. F. W. Hunninghouse and Mr. F. W. Saunderson.

Dr. Steinman, the principal speaker of the evening, enumerated the various advantages of unity and strength so successfully attained by the National Society through getting the different branches of engineers to cooperate under one banner, and by so doing to enhance their standing in the public eye.

The speaker also pointed with justifiable pride to the fact that there are now thirty-five States wherein registration laws have been enacted.

UTAH

Society Calls for Co-operation

The following has been excerpted from the October issue of the Utah Society of Professional Engineers news letter:

You, as a professional engineer, are interested in the effective operation of the Engineers' License Law. Familiarize yourself with the provisions of this and report to the State Department of Registration or your Secretary any infringements or violations. It is decidedly unprofessional for engineers in Federal, State or other public service to give free engineering service to the disadvantage of an engineer in private practice.

DISTRICT OF COLUMBIA

(*Continued from page* 15)

control and soil conservation. Last year, he states, was the first time any college gave a course on this subject and only one college offered it.

He pointed out what a wonderful job the Conservation Service was doing with the money they had; the interest shown by and the cooperation of the farmers; how it is handled, what had been done and what will be done.

Engineer Harris gave us a very frank talk on ways and means to increase our membership and pointed out mistakes to be avoided based on the experience of the Connecticut Society. A real honest to the point talk.

President Dunham then proceeded with the business of the evening. The constitution as written and printed, copies of which had been mailed to all members, was adopted.

From the floor Engineer Barnett introduced Engineer Arnold G. Chapman, Past-President of the New York State Society of Professional Engineers. Engineer Chapman told us of some of his Society's troubles in gaining recognition and congratulated us on the progress we had made to date.

All in all we had a meeting attended by about seventy-seven, each of whom felt, when he left, that the evening had been well spent.

PENNSYLVANIA

(*Continued from page* 16)

If you at present, or at any future time, have knowledge of a position requiring the services of an Engineer, please furnish the information shown on the Form *"Inquiries Received for Engineers"*, by mail immediately.

If you have knowledge of an Engineer not employed, or who desires a change to advance himself in his profession or to secure greater remuneration for his services, we request that you have him fill out the Form—*"Application for Position and Record of Professional Experience"* —and mail as soon as possible. It is understood that all information supplied shall be accurate.

This information will be kept confidential and only for the use of the three members of the Employment Committee in recommending Engineers for positions.

We have been contacting employers of Engineers and have been received very favorably.

Additional Forms can be secured upon request.

While primarily interested in Registered Professional Engineers, we will accept application from men qualified for less important engineering positions and will place them as an opportunity occurs.

We again request that you take an active interest for the good of all.

Mail the information or Forms to Engineer Russell S. Conrad, 905 North Sixteenth Street, Harrisburg, Pennsylvania. Telephone 3-8007.

Note! Cut form from American Engineer. Forward same as indicated.

NEW JERSEY

(*Continued from page* 15)

to the aims and purposes as set forth in the Preamble, Constitution, and By-Laws of the National Society of Professional Engineers. In order to aid in advancing these ideals in the State ..... this Society accepts a charter from the National Society, subscribes to the provisions of the National Society Constitution, and herewith sets forth its Constitution and By-Laws of which this Preamble is a part.

Article—Name: This Society is a member state society of the National Society of Professional Engineers and shall be known as the Society of Professional Engineers.

Article—Membership: The membership of this Society shall be limited to Professional Engineers, registered under the laws of this State. Every member of this Society is a member of the National Society of Professional Engineers.

Article—Dues: The dues of the Society shall be ( ) dollars per annum, due and payable at the beginning of the fiscal year on January first. These dues shall be apportioned as follows: ( ) dollars shall be retained by the State Society for its own activities and four dollars shall be transmitted to the National Society to cover National Dues and subscription to the American Engineer.

Article—Chapters: This Society, through its Executive Board, may authorize and charter one chapter in each County or group of Counties of the State. Only registered Professional Engineers shall be admitted to membership in any County Chapter, and every member of a County Chapter shall be a member of the State Society and of the National Society.

2. This acceptance is made in accordance with the requirements as provided by our State Constitution.

.....
Name of State Society

.....
By—President

Attest
Seal:

.....
Secretary

This acceptance can not be signed at this time because contrary to the provisions of this Constitution our N. J. Association allows for the membership of Land Surveyors in our Association—The Secretary was instructed to contact

the New York and Pennsylvania Societies to ascertain what measures they have taken to handle this situation:

Legislation

Engineer Goodkind reported for the Architects-Engineers Committee and stated that two meetings have been held August 15th and August 27th respectively. It is the purpose of the Engineers to pattern the N. J. law after the present N. Y. State Law which allows for no distinction in the matter of structural design between licensed Architects and licensed Engineers: The Architects are opposed for purely selfish reasons but are beginning to alter their viewpoint:—Engr. Goodkind proposed that the Engineers draw up a rough draft of the proposed change in the State Law so that the Architect members of the joint committee can submit same to their Board for consideration:—Then if the Architects oppose and fail to co-operate it is up to the engineers to submit the revision to the Legislative Committee and draw up the same for Legislative presentation:—

Wednesday Night, October 21st, at the Hotel Douglas, Newark, N. J. was picked as the meeting night for the final report of the Legislative Committee:—The members of the State Board of Examiners were cordially invited to attend this meeting to give their aid in whipping the legislative program into final form:—

At this point a resolution was presented by Engr. Tilton and passed, which is to be forwarded to the Legislative Committee and the State Board for their consideration in our legislative program.

WHEREAS, it is the intent of the State Board that all applicants for the license of Professional Engineer shall be required to pass a written examination as well as meet the stipulated requirements covering practical engineering experience before license is granted, therefore,

BE IT RESOLVED, that a graduate of an accredited engineering college be allowed to take the written examination any time he chooses after graduation without having to wait the full period of time until he has met the practical experience requirements as well:—This procedure will follow that now adopted by the State Medical and State Dental Boards and a man does not have to have the threat of an examination hanging over his head five or six years after he is out of college:—License to be withheld and only granted after the requirements as to practical experience have been complied with:—

Fees

The Secretary was directed to have copies of the Fees and Salaries schedule adopted by the Association, be printed and mailed to each licensed engineer.

The following schedule of Engineering Fees has been adopted by the State Highway Department and the Secretary was instructed to thank the authorities of the State Highway Department for their sincerity in adopting this schedule.

State of New Jersey State Highway Department, Trenton

Schedule of engineering rates which will be shared in by the State for Township and Borough aid work when engineering has been requested and approved in accordance with Department rules concerning Engineering and submission of Projects.

1. For the construction of gravel roads where complete plans and specifications or cross-sections are required, approval will be given up to a maximum of 10% of the cost of construction with a minimum allowance of $400.00 per mile for the engineering work. Any additional cost of engineering to be paid entirely by the municipality.

2. The State will not share in the cost of engineering on force account work.

3. Where a pavement surface is to be applied and no detailed plans and cross sections are required, the State will share in the cost of engineering not to exceed $300.00 per mile.

4. The State will not share in the cost of engineering work where specifications are necessary for surface treatment only.

5. The State will not share in the cost of engineering on right of way.

6. The State will share in a maximum engineering cost of $1,000.00 per mile, and approves the following rates:

$10,000.00	to $ 25,000.00	— 10	to 9½%
25,000.00	to 50,000.00	— 9½	to 8 %
50,000.00	to 100,000.00	— 8	to 6½%
100,000.00	to 250,000.00	— 6½	to 5½%
250,000.00	to 1,000,000.00	— 5½	to 4½%

In cases where the engineer is employed on a salary basis, the State will not share in engineering cost except for extra assistants necessarily employed by the municipality for the particular project.

The amount that the State will share in is not to be construed as fixing the actual value of the engineering, but is merely the maximum amount in which we will participate.

Federal Emergency Construction Program
Request for Reports
Instruction Sheet

In view of the intense interest shown at this time in the engineering and construction world in the pump priming and relief programs of the Federal Government, we do not believe the forthcoming program of the National Society of Professional Engineers would be complete without some discussion of this topic. In order to conserve time, we are asking each State Society to submit *to the National Secretary by Oct. 1st* at the latest a report summarizing the work of such government agencies as the Federal Housing Administration; W.P.A., Resettlement Administration; Home Owner's Loan Association; P.W.A., etc., showing how the rules, regulations and set-up of each of the agencies have directly and indirectly benefited.

1. The nation as a whole
2. The immediate community
3. The construction industry
4. The Professional Engineer

While we have placed the professional engineer fourth on the list, we as members of the Society are vitally interested in this point. The report should therefore necessarily stress the effect on the engineer. Furthermore, the report should show particularly how the engineering profession and the construction industry have been benefited by each of these programs, as to

1. Ethics
2. Employment
3. Monetary Return
4. Future of the engineering profession and the construction industry.

(Regimentation versus individuality as expressed by the set-up of the various programs above).

(It will be necessary that actual facts be used in all statements under the above headings. Needless to say, the Society is interested in learning which of the Federal programs is considered more beneficial to the professional engineer).

With each report, a summarized statement should be presented backing up all contentions made. While the report can be as lengthy as necessary, the summary should not exceed 500 words for ready compilation.

In order that no criticism be directed to any individual in expressing opinions in the above report, we request that all employees of any of the above agencies be prohibited from writing any sections of the report.

Program Committee of the
Second Annual Convention Committee.

Engineer Beale Schmucker was appointed Chairman by the President of a committee to investigate and make up a report on these questions for presentation to the N.S.P.E. at the Convention.

Membership

Engineer Hobby, Chairman of the Membership Committee submitted the following report.

Minutes of Members of the Membership Committee of the N. J. Association of Professional Engineers and Land Surveyors Held at Shark River Hills Hotel on September 12, 1936

Present: D. C. Boswell, Peter F. Daly, F. W. Loede, Leo K. McKee, A. L. Trimpi, Glen S. Reeves, A. S. Hobby.

Absent: Robert E. Crocket, J. E. English, G. Russell Hartley, Winfield Hopkins, Harry Jurnecka, Raymond Leuthy, George F. Rich, D. M. Vail, Paul P. Rice, Fred D. Braun.

Unfortunately, less than a majority was present, but it was decided to call the meeting into session with such members as were present.

The functions of the Committee were explained to those present by the Chairman, and it was explained that the principal function of this Committee was as a clearing house for the work of the Chapter Committees, to outline uniform methods and to acquaint chapter committees with successful methods of other chapters, etc.

A map of Union County was exhibited, divided into areas, each one of which was assigned to a specified member of the Chapter Membership Committee as his responsibility. That member is instructed to commandeer any other chapter member to assist him in working on a project.

A list of every licensed engineer within each area is prepared by the committeeman assigned that area, and he is expected to contact every such licensee who is not a member of the Chapter and in good standing.

The list of licensees is made on three by five inch filing cards, one man to a card, showing name, town, license num-

(*Continued on page* 21)

REPORT OF TELLER'S COMMITTEE N.S.P.E.

For Election of Officers

Mr. Chairman, Fellow Members:

It is indeed a pleasure for me to present to you at this time the findings of your Teller's Committee. I present forthwith the count of the ballots received by your National Secretary.

Total Number of ballots received....	1575
Ballots rejected because of Constitutional Violations	19
Total legal ballots considered.....	1556
Votes cast for entire list of candidates as presented by the Nominating Committee	1509
Ballots indicating preference for one or more candidates other than those indicated on the ballot.....	47
	1556

Respectfully submitted

Raymond C. Sullivan

Chairman Teller's Committee

Michael Mascia

C. A. Lashbrook

THE ENGINEER IN PUBLIC SERVICE

(Excerpts from address before the Pennsylvania Society of Professional Engineers at Hershey, Pa., Sept. 25, 1936, by Engr. D. B. Steinman, President of the National Society of Professional Engineers.)

The Engineer, as a professional man, is prepared to give freely of his talents and energy in public-spirited service to his community, state, and nation; but the public has not yet learned to recognize the full scope of the qualifications and training of the Engineer. On public boards, municipal councils, and planning commissions, the Engineer is still generally conspicuous by his absence. The public fails to realize that the modern Engineer does not limit his work to surveying and drafting, or the computation of stresses and strains. By training and experience, and by force of the diversity and complexity of the problems he has to handle, the modern Professional Engineer is an expert on economics, financing, planning, organization, and management. He works with men, as well as with the materials and forces of nature. The modern Engineer has to conceive large projects in their broadest aspects and in their most far-reaching ramifications. He has to investigate and demonstrate their economic soundness and financial feasibility. He has to organize, direct and supervise the constructive work of armies of men. He has to conceive, plan, execute, and co-ordinate projects of largest magnitude. He has to exercise vision, resourcefulness, judgment, and versatility beyond the requirements of any other profession.

With these qualifications, added to his civic spirit and to his knowledge and understanding of public improvements from the professional viewpoint, the Engineer should be found in all important executive and administrative positions. The public cannot afford to have the Engineer missing from public boards, councils, and commissions. We may look forward to the day when Engineers will be recognized and sought for all of the highest positions of planning, leadership and trust throughout the land.

MORAL DECISIONS

Unrecognized by Science

Become Man's Responsibility

Blackpool, England—(AP).—Science, lending aid to man both in war and peace, "recognizes no moral obligations," the British Association for The Advancement of Science was told.

Judging of the uses to which science may be put, Prof. William Cramp, president of the engineering division of the Association, asserted, is up to man—and the engineer is no better and no worse than his brethren.

Surveying the engineer's relation to the nation, Dr. Cramp asserted:

"The engineer is called upon to answer certain charges laid against him by the preacher and the press. The first is that he is equally willing to lend himself to works of utility and to works of death and destruction.

"Remember, however, his dual role. Pure science has nothing to do with ethics; she recognizes no moral obligations whatsoever.

"The same explosive that releases coal underground can also kill men in battle. The telephone is useful alike in the home and in the front line trenches. The same bacteria may be beneficial in one case, harmful in another. The same principles that bring the stars within our ken also control the range-finder.

"There is no scientific apparatus that cannot be misapplied; and to every advantage there is a corresponding drawback.

"To the extent that the engineer is a scientist, the use to which his discoveries shall be put does not concern him. But, it will be urged, the engineer on the human and commercial side designs and makes armaments for profit.

"And if he does, shall he not be credited with at least as much honesty of purpose as the politician who declares war and orders the guns.

"May he not be persuaded, profits apart, like the Archbishop of York, that 'the great war was a thousand times worth while?'"

Appealing for stringent regulations to enhance the professional standing of engineers, Dr. Cramp contended "where the doctor's neglect kills one man, the engineer's mistake may kill 100."

But, he added, professional protection permits the medic to "bury his accident behind a death-certificate he himself issues" while the engineer must submit to a public legal inquiry.

The engineer, he said, has liability of the physician without the status.

EMPLOYMENT PANACEA FROM OHIO

(*Continued from page* 14)

their assistance? It cannot. The engineer, who cannot figure it out, need only to consider the experiment where it has been tried—that's scientific.

Wealth must be continuously created and continuously consumed; when the consumption is reduced the production is reduced, then the reduced production results in further reduction of consumption; still lower consumption means still less production—that should be clear to all engineers who have made a study of the workings of our capitalistic system.

How then can the purchasing public, which is now spending 100 percent of its income, increase production by spending but 97 percent? (The other three percent being "sales tax".) The result would only be further reductions in both production and consumption.

As most engineers seem to have neglected their duty by failing to study the workings of the system of which they form a part, an outline follows: The capitalist uses the services of the employee to produce profit for himself (the capitalist)—the employee, by the opportunity to use the real estate or the machine "owned" by the capitalist, creates wealth; a *portion* of this wealth he has created is returned to the employee in the form of wages, or "salary" to the engineer with the dignity of his profession to maintain (even though the salary may be lower than some of the wages); the *balance* is retained by the capitalist under the name of "profit". Now because of this dividing-up or share-our-wealth system which we have, in the long run, the creators of wealth always receive less than they create—so the gap between potential demand and market demand ever increases, and production ever decreases.

Rube Goldberg started out to be an engineer; but while in college he specialized in making pictorial diagrams of round-about methods of doing things by introducing many links in the chain of cause and effect. They are very "interesting and ingenious" but the factor of efficiency is not considered by him. Goldberg became a "success". It may be that some of our engineers aspire to the success of Goldberg by proposing in their writings and publications the same fantastic efforts to produce results desired by the public.

Walter P. Shuette proposes that part of the wages be "re-employment assessment" in the form of "re-employment certificate" purchased by the employer at the Post Office; employee when purchasing part of the wealth he created also pays an additional amount for the purchase of a "re-employment certificate"; purchasing employee then cancels "re-employment certificate with ink furnished by the seller"; purchaser then returns them to the seller; seller then uses them to pay wages; employee who receives them as wages, takes them to "Federal Re-employment Office"; Re-employment office gives employee order on Post Office; employee takes order to Post Office; Post Office, where the re-employment certificate was purchased, gives the employee his cash wages!

Mr. Shuette, who is said to have won an award from a Scripps-Howard newspaper organization, makes Rube Goldberg look like a piker in Goldberg's own special line. We wish him the success that has been Goldberg's and hope that he will be as honest and no longer claim to be an engineering student. Our greatest hope that the Editor of THE AMERICAN ENGINEER will start a Rube Goldberg Department, so that those members of the National Society of Professional Engineers who have never developed a sense of humor will know when to laugh.

Comment:

The American engineer prints the contending viewpoints in the hope that greater interest may be aroused. It does

not take sides. Major D. W. Blakeslee is a member of the Pittsburgh, Pa. Chapter.

NATIONAL COUNCIL

(*Continued from page* 14)

the engineering profession would be advanced.

The Secretary, as one of the representatives of the National Council, attended the annual meeting of E.C.P.D. which was held in New York City on October 6, 1936. The reports of the E.C.P.D. Committee and the Committee on Accredited Engineering Schools cover the activities of E.C.P.D. of which the National Council is a participating member.

The Council through its Secretary was consulted in connection with the Cuban Decree-Law No. 744 which provides for the regulation of the practice of engineering in that Country and was approved April 3, 1936. This Decree-Law, as first proposed, limited the practice of engineering in Cuba to Cuban citizens only but now contains the following provision on reciprocity. "Engineers who are citizens of sovereign states, or of states, dominions or colonies with their own legislation, which do not therein require Cubans to be citizens of that country in order to practice the profession of engineer, shall enjoy in Cuba the right of reciprocity, being exempt from the provisions of the first paragraph of this section." (To be a Cuban citizen.)

A new map has been prepared by the Secretary showing the status of the registration of engineers. This map is submitted as a part of this report and will be printed in the Proceedings. Additional copies of the map will be available for distribution to committees who are promoting new registration laws.

It is recommended that the annual meetings of the Council be rotated among the four Zones into which the Member States are divided and that the next three meetings be held as follows: 1937 in Northeast Zone, 1938 in Central Zone, and 1939 in Western Zone.

In the last report of the Secretary (page 13, 1935 Proceedings) recommendations for the future development of the activities of the Council were given in detail; therefore, reference is not again made to these matters.

The Secretary is very grateful for the encouraging interest shown by Member Boards and national engineering groups in the efforts of the Council to coordinate the activities connected with the registration of engineers.

Respectfully submitted,

T. Keith Legaré
Executive Secretary.

October 19, 1936

AN APPEAL FOR PUBLICITY

(*Continued from page* 14)

can be turned out by the thousands very efficiently and standardized to such an extent it no longer requires the skilled operator it once did to operate it. A juvenile could do so with the expenditure of little effort and without any knowledge or interest of what takes place under the hood. Automobiles have become so numerous and common place they are no longer considered as engineering contributions but just necessities of life.

The steam locomotive is another fruit of the engineer's brain which has also become a part of our national structure. When it was first invented it was a thing of devilish wonder and amazement, spouting fire and smoke. Only a trained man, usually the one who devised the mechanism, the engineer, had the temerity to get into the cab. So the public associated the title "engineer" with the one who drove the train. As time went on more automatic controls were added, safety devices along the right of way were installed, all with the intention of making the engine as fool-proof as possible. It no longer required the inventor, the "engineer", to operate it nor did he have the time. As more engines were built more men were required to drive these "Iron Horses" and so the engineer trained others in the handling of these wonders of the age. These enginemen were erroneously called "engineers" and no effort was ever made to correct this wrong impression and so the title "engineer" is sometimes used today for the one who drives our modern trains. This is another example wherein education through publicity would clear up the confusion in the minds of the public.

That this impression exists was recently proven during the convention of the American Society of Mechanical Engineers in Denver. The management of the hotel where the convention was held contemplated screening off a portion of the dining room for them, believing them to be railroad men—their conception of all engineers—and as such their presence and garb might offend other guests. Informed that these visitors were college graduates, trained engineers and not operators, many of them prominent designers of mechanical devices and equipment for large manufacturing concerns, the need of the screens passed. This confusion is not confined to Denver, it is generally prevalent. We must do something about it.

Another case "in point" is the advent of the aeroplane and its wonderful development by the Wright brothers which was heralded around the globe. At first the people were astonished and amazed at its ability to rise off the ground. It became the main attraction at the County Fair which often billed as its main feature, "The Flight of Captain Baldwin in His Red Bi-plane". When the aeroplane was improved Lincoln Beachey thrilled the crowds with his daring flights including one under the steel arch bridge at Niagara Falls. As engineers made improvements in the flying capacity and manoeuverability of the plane its popularity increased and Lindbergh in his successful flight of the Atlantic firmly established its safety in the minds of the people. This was the beginning of a series of long distance flights culminating in the establishment of the present Sikorsky Clipper Service now operating on almost railroad schedule. The engineer should receive much credit for this phenomenal development but seldom receives any. During the festivities of the Lindbergh celebration some one did think of the part the engineer played in his great feat and asked "How about the one who built the plane making the flight possible? Why doesn't he come in for some of the glory?" The answer came back "Who ever heard of Paul Revere's horse". This is often the attitude taken by the public and it should be corrected—we must secure some of the drama of the enterprise.

It has been the fate of all engineering contributions—to have a short life. Only by a novelty or something spectacular does the engineer attract the public's attention today. That there is little concern over this condition is due principally to the engineer himself. He is so self-contained and so self-satisfied with the mental pleasures of his accomplishments that the thoughts of proper remuneration or credit or the welfare of his profession little concerns him. If the engineer ignores himself he cannot expect recognition from others or blame them for usurping for themselves credit rightfully belonging to him.

How can one expect the general public to give the engineer credit when our leaders do not? Is it any wonder the public is so bewildered as to just what an engineer is or does, especially with so many using the term in one form or another? This last condition has been corrected by a law which should be more strictly enforced. The usurpation of credit by those running for public office could be effectively stopped if the thousands of engineers around New York had the fortitude to let out one great squawk. It would not recur because votes are a desired necessity at times and the politician who lacks sagacity by antagonizing any group is soon one of the also-rans. Or if the members of the profession would send letters of protest to the various editors calling attention to the abuse, this flood of public opinion could not be ignored. Then at the next dedication there would be less ego and more credit for the public that supplied the funds to make it possible and the engineer who designed and created it.

Most engineering work is not visible and thus unable to "speak for itself" and as a result we are ofttimes maliciously attacked by misinformed people. By publicity we could clear up misunderstandings and defend conscientious engineers especially those who are unable to vindicate themselves in understandable language.

Through publicity N.S.P.E. can inform all of its aims and objects, remove all fears regarding its ambitions and build up "Good Will" for the profession. It could establish a reputation for the engineer, call attention to his high ideals, his integrity, his special fitness to aid the public in its problems. When thus placed in his right light the engineer would be better known and understood, would command greater respect. The public would then be in sympathy with his undertakings, have confidence in his judgment and would take greater advantage of his services and counsel. This high appraisal of his capacity and true worth will naturally result eventually in an increased economic status. He would be a moving force in his community, a distinct addition to both social and political affairs and because of his reputation would be able to accomplish greater advantages for his profession through legislative and political channels.

The engineer needs must become professionally minded. He will then want to contribute his share to raise the profession to the high pinnacle it deserves. The engineer has been asleep to his own potentialities. He has stood idly by,

heard others proclaim his unfitness for leadership because of his training, saw others capitalize on his ability and ingenuity, minimize his efforts and training and give him disproportionate monetary return for his service. The engineer can change all this if he will organize his profession so that it can exert its maximum influence. This will only be accomplished when all engineers and engineering societies place their own interests second to those of the profession. Until this is done engineering will not make much professional progress. Through solidarity of professional interest engineers can establish themselves to be a power in the country, and can obtain a share in government commensurate with their contributions. The builders of the country will be among the leaders. Then every engineer will be proud to claim membership in one of the oldest and most honorable of professions.

NEW JERSEY

(*Continued from page* 18)

ber. street address and phone, followed by his classification, a brief professional record and other useful data; the date when he joined the chapter, and (for prospects), pencil notes regarding interviews and reactions, etc., so that if it is desirable to send another member to work on the case he will have on the card full information necessary for his approach. If these temporary notes are in pencil, the space can be used after the prospect becomes a member to record committees and officers served, etc.

The reverse side of a card is ruled to show the member's attendance at Chapter meetings and so keep tab on his interest in the organization and for follow up work where members lack interest.

It was the opinion of those present that the system was good as well as simple, and there were no improvements suggested, and that each member of this committee endeavor to have his local chapter committee adopt the system and actively pursue it.

The question of dues was discussed. The difficulty of collecting a full year's dues from a prospect who might be considering joining the organization any time after the first quarter of the fiscal year had expired, as well as its unfairness to the prospect was stressed and debated.

Moved by McKee, seconded by Boswell, that the question be submitted by the chairman to the State Association with a recommendation that the State and National Societies authorize chapters to collect dues for them from new members for the quarters of the fiscal year remaining at the time the member joined.

It was suggested that the license law should be revised to make it illegal for any person operating in the State under the title of engineer, as employees or otherwise (as for instance if they appear on a payroll as an engineer) without a license.

There being no further business before the Committee, the meeting was adjourned.

Arthur S. Hobby
Chairman, Membership Committee.

It was decided that the question of partial dues for new members should be brought up on the floor of the National Society of Professional Engineers Convention by the New Jersey delegation:

Engineer Hobby suggested that the use of the title "Engineer" should be restricted exclusively to licensed engineers and suggested that the Legislative Committee and State Board give this suggestion consideration: New York State revised their law last year to cover this point and the Legislative Committee should consider the New York revision.

Engineer Tilton suggested that the seal and signature of each licensed professional engineer be registered with the County Clerk in his County:

Engineer Hobby pointed out that every licensed engineer has full rights within the entire State and that it would be impractical to require such a registration within each County:

The Secretary was instructed to write the State Board of Examiners and thank them for their generosity and cooperation in including in their Roster information relative to the State Association:

Considerable discussion was aroused over the N.S.P.E. Convention in Washington to be held October 12th and 13th.

President Randolph appointed Engr. Claire Tilton as Chairman of the delegation to the National Convention with the following delegates, Engrs. Knight, Gelineau, Pray, Bauer, Rice, Randolph and Weeks.

A motion was made and passed granting full expenses to be paid Engr. Tilton by the Association and that the carfare of the delegates to be paid by the Association. Bills to be submitted to the treasurer for payment.

The individual Chapters were next urged to send their delegates to the convention and if financially able, defray part or all of the expenses:

Headquarters for the N. J. delegation will be in the suite of Chairman Tilton at the Mayflower Hotel and all delegates attending are asked to contact Engr. Tilton for consultation and decision:

The following instructions have been given the Chairman for action by the convention:

1. The status of Land Surveyors within our State Association Membership, no provision being made to allow for them in the new N.S.P.E. Constitution:

2. That voting at the convention shall be by states, each state to be given a voting power commensurate with the number of members within that state in good standing in the N.S.P.E.: The Delegate Chairman from each state to cast the vote of his state and the procedure followed to correspond to that of the political parties national convention:

A suggestion was made at this point to have the By-Laws Committee now studying a constitution revision, composed of Engrs. Weeks, Wise and McInnis, give consideration to having the voting at our State Convention changed from acclaim from the floor to the following: One vote to each Chapter and in addition one vote to every 25 active members or fraction thereof; voting power to be determined by a credential committee before the convention:

The President expressed a desire that the Convention Committee start to function and begin rounding up convention plans into shape.

Meeting was adjourned at 12:15 P.M.

Ernest F. Weeks,
Secretary.

ANNUAL CONVENTION

(*Continued from page* 7)

Congress and vigorously supported before that body by N.S.P.E. which also urged a modification of title of the legislation proposed.) This would aid in eliminating the criticisms resulting from too many and overlapping agencies, especially relief bureaus.

5. Requesting the federal government to recognize the laws regulating the practice of engineering in the several states and territories, when federal agencies operate therein. (This would place relief work programs under direction of persons competent to protect life, health and prosperity and would eliminate present abuses and misrepresentations concerning the designation engineer.)

The chairman of the Tellers Committee, Engineer R. C. Sullivan reported that 1575 votes for officers had been cast with 19 voided on account of constitutional provisions. The vote was as follows: for President Arthur V. Sheridan, New York 1536 votes, for Vice-Presidents Perry T. Ford, Ohio 1528 votes, Morris Goodkind, New Jersey 1517 votes, Charles T. Watson, Oklahoma 1530 votes, H. E. Babbitt, Illinois 1528 votes; for treasurer, Walter L. Simpson, District of Columbia 1534 votes.

The report was accepted and the persons listed declared elected.

TUESDAY, OCTOBER 13—P.M.

Following two inspection trips and luncheon, the fourth session opened at 2:30 P.M. with the induction of President Sheridan by retiring President Steinman, which was followed by the presentation of new officers and a response by Sheridan.

The chair presented Engineer Morris L. Cooke—Administrator for Rural Electrification who delivered in a forceful manner a paper on the Engineer in public and administrative life. He complimented the Society on its human aspirations and objectives.

Perry T. Ford presented an interesting report together with recommendations on the subject of membership, dwelling upon conditions in states visited. He paid compliment to the sacrifices made by past president Steinman.

With Vice-President Ford presiding, Chairman Sheridan presented the report of the Publications Committee, directing attention to the necessity for editorial services to replace those of the newly elected President, who could not carry on both tasks.

The Committee on Flood Control as a national and engineering problem reported through its chairman, Engineer Harry E. Harris on the splendid response to the appeals of the Committee and on the strides that had been made in promoting public and official recognition of the Society's endeavors.

The Committee on Professional Relations reported through the Chair on the results of endeavors to promote closer relations with other professions. The responses of the American Bar Associa-

tion and American Society of Certified Public Accountants have been most encouraging; that from the American Medical Association—hopeful; that from the American Institute of Architects—cool.

Engineer Dunham, as Chairman of the Committee on By-Laws for the Society reported on the proposals of the Committee which had been presented and considered by the Board of Directors at its meeting of the previous evening.

Engineer Hugh Kelly reported on the endeavors of the Endowment Committee and recommended the need for stressing the basic aims of the Society, viz: to promote human welfare first and professional welfare second.

President Sheridan in closing the session offered a commentary on the debt that the engineering profession and the National and State Societies owe to Engineer D. B. Steinman whose zeal, intelligence and sacrifice of time, money and talents finds no parallel in the history of the profession.

The meeting adjourned at 5:00 P.M.

Dinner and Dance

The Convention closed with a banquet and dance held in the Grand Ballroom of the Hotel at 7:30 P.M.

Retiring President D. B. Steinman as toast-master, presented the speakers for the occasion, who were—Harry P. Mitchell, President of the United States Civil Service Commission, David Cushman Coyle, prominent engineer economist and author, and Arthur V. Sheridan, President of the Society.

Acknowledgments

To those who attended to the details of the convention, and to the agencies of the Federal Government, the Catholic University of America and others whose exhibits and demonstrations were on display in the grand foyer, the Society express its sincere appreciation.

ENGINEERING CURRICULA

(*Continued from page 8*)

presenting the subject matter in a manner satisfactory to the practitioner and to the student.

Having satisfied himself that there is some financial reward to the pursuit of a particular curriculum the student may then ask himself: "is it interesting?" Interest, like taste, is sometimes a matter of early training and environment; is frequently a result of prejudice; and sometimes fails to exist through ignorance of the subject. It is probable that comparatively few high school students know what is meant by ceramic engineering, and it is probable that some will be found who have a distorted view of the activities of a cadastral engineer. The engineering educator is powerless to control those incidents of early life, or the conditions of early environment which lead towards or away from any particular branch of engineering and it is evidently impossible for the engineering educator to prevent the early birth of prejudices. The practitioner too is somewhat helpless in this endeavor. The activities of the profession must either speak for themselves, must be spoken for in literature, in art, in performance, or in other forms of public education, such as the cinema.

Responsibilities of the educator in arousing interest in a particular engineering curriculum begin when the student presents himself at the gates of the engineering college; although there have been attempts to cooperate to this end, with secondary schools. As the student enters college he is admittedly unable to choose his curriculum with intelligence; he cannot wisely choose between ceramic and cadastral engineering because of his ignorance of them. Recognizing this situation most engineering colleges postpone their major differentiation between curricula until the middle or the end of the freshman year. The period preceding the choice of the curriculum by the student should be devoted, in part, to educating the freshman in the characteristics and the potentialities of the various branches of the engineering profession.

Interest in an unknown subject can be aroused only through education in that subject. No one can be interested in a thing of which he is ignorant. It is possible, however, that repugnance rather than interest may be aroused. This depends upon circumstances, the student, and the educator. After interest has been aroused it must be maintained, or curiosity must be satisfied. Any engineering curriculum should be made interesting if it is hoped to attract students. Herein the educator has a duty and a clear field. He may be handicapped only by the nature of that branch of the profession which is being presented. It is possible, however, that the promise of high financial reward may be a valuable aid in arousing and maintaining interest in an otherwise hopelessly uninteresting career. Nevertheless the responsibility of adding interest to a curriculum lies principally at the door of the engineering educator.

If both interest and a promise of a living are connected with a career and are secure in the mind of the student a third condition must be satisfied before the career can be adopted. There must be assurance that there is personal aptitude and ability in the field or it will not be chosen. Many have turned from engineering because of a fear of the mathematics involved. None but the individual concerned can supply that feeling of self-confidence essential in the selection of a career. It is possible that the educator in the secondary school has influence in developing self-confidence. Experience and contacts may also lead a student to "find himself" in some line of work. Self-confidence having been established the third essential to the choice of a career has been satisfied.

Some, with a bent towards adventure and romance, may select a career in mining engineering. Another, with obligations and inclinations to remain in a populous center may choose architectural engineering, and still another, loving the great out-doors may favor civil engineering. The general location of activities in the prospective branch of the profession is a factor in its adoption. Nothing that the educator can do will affect this factor. It is inherent in the nature of the career.

The admiration and approbation of his fellows may affect a student in the choice of his profession. Possibly respectability rather than admiration might better represent the incentive. A deep thinker, one who carefully considers his future might be affected by the position in life which is offered by a career. Unquestionably a career as an engineer afloat is avoided by some because no marine engineer hopes to attain command of the vessel. It might be difficult for a mechanical engineer, without unusual qualifications, to become chief engineer of such a project as the Panama Canal. No man wishes to start life along a road which does not lead to the top, even though the going may be smooth and the view expansive. The promise of the pursuit of a respectable career combined with the attainment of riches, power and influence are potent factors affecting the choice of a profession.

One other consideration exists in the choice of a career which is seldom spoken of among practical engineers but which is, unquestionably, more potent than is openly admitted. It is the factor of *service to others;* the possibility of making the world a better place in which to live. Personal pride, satisfaction, joy in a job well done, cannot be dimmed by economic depression, cannot be measured in the purse, is not measurable in any materia' units. The bridge engineer's name is carved upon its abutments; the architect's is attached to the edifice he has conceived; the mechanical engineer is content with the accomplishments of his invention. All enjoy the personal satisfaction resulting from work well done. Can the public health engineer gain any satisfaction from the knowledge that through his efforts in purifying the water supply 1,000 persons now alive would be dead from typhoid fever? If knowledge of the characteristics of a career and its promise of a living may be considered as essential to its choice, then the promise of service to humanity must be included as a potent factor in affecting this choice, but one of a different nature from the others. It must, however, be considered.

Summarizing the consideration and factors which have been mentioned as affecting the choice of a career they are: (1) The promise of a living, (2) Knowledge of the career, (3) Interest, (4) Self-assurance and aptitude, (5) Location, (6) Respectability, (7) Romance, (8) Riches, (9) Adventure, (10) Power, (11) Influence, and (12) Service to humanity. Of these the first two are the most essential. Adventure may be had without romance and riches without respectability, but none without a living.

Glancing through this list it is astonishing to note that the educator can affect but two of the conditions; knowledge and interest. Upon the professional engineer must fall, to a great extent, the promise of a living to the young man adopting the profession. The character of the profession must supply the others except the individual's self-assurance and personal aptitude.

It is impracticable to consider a curriculum which is either repulsive, or unattractive. A curriculum representing any branch of the profession of engineering must have students as a reason for its being.

Before considering the details of any particular change of policy in education, therefore, the point of view of the student must be considered. For example, such a consideration has forced itself most unwelcomed upon the advocates of the 5-year curriculum. The probability

that schools offering only a 5-year curriculum would be less attractive than those offering a bachelor's degree at the end of four years has been recognized and the 5-year plan has not been widely adopted as a result.

The attitude of the student must be considered in the discussion of any educational policy, particularly in so practical and materialistic a career as professional engineer. The educator stands ready to respond to the needs of society and of the profession of which he is a member.

FRANCE'S PROBLEMS

(*Continued from page* 9)

We present today the following definite question: Does the government intend to provide for examinations for one or more degrees based upon programs previously established so as to give the workingman access to an engineer's diploma without setting impossible conditions?

This done, an important reform of benefit to the public will have been instituted at a small cost.

The Society of Professional Engineers, to which today belongs a considerable number of engineers who did not graduate from Government Schools, is ready to lend all its influence to satisfy this just claim if—which does not seem probable—our new Socialistic government does not quickly put through this desideratum (this much desired measure).

We have implicit faith in the General Director of Technical Instruction and in his assistants who, we know, are well disposed toward democratic reforms and who will not be astonished at our suggestions. Should, however, this denial of justice be continued, it will be easy to look into the doings of private and also of certain government schools, which, in our opinion, give too many diplomas and we will point out to the suffering public those feudals who—to use the words of Joseph Caillaux—formidably armed and with a gun in hand for many years considered Technical Instruction a preserve from which no one could dislodge them.

The workingman has the right to strive for higher technical degrees because he has technical experience which students of schools do not possess, and, in addition, the theoretical knowledge required for the examination.

Therefore, as soon as possible, let us have programs and examinations without further difficulties and at this time we ask that the Chamber of Deputies act in order that this proposal may become an accomplished reality.

Note: The above is intended as a liberal translation.—Editor.

LEGISLATION AND REGISTRATION

(*Continued from page* 10)

Alabama: The Act became effective in September of 1935 but up until August 1936 your chairman has been advised that no engineer has been licensed.

Michigan, Minnesota and Wisconsin: Each of these states has had Registration Acts which include architects, engineers and surveyors. Wisconsin publishes a year book which is excellent. This year book contains a preface, rules and by-laws of the examining board, a copy of the Act, a schedule showing the status and officers of registration in each state and a roster of all architects and engineers.

Illinois: Illinois has a registration law for structural engineers. Efforts, which so far have been unsuccessful, are being made to pass an Act for registration of all kinds of engineers.

Indiana: Indiana also issues a report as complete as the Wisconsin year book.

Texas: Surveyors are only licensed in this state.

South Dakota: The Act has been in effect since 1925 but difficulty is being had in enforcing this act.

Utah: In this state too, the Act became effective June 21st, 1935. The grandfather's clause expired one year thereafter.

Arizona: This Act was revised and became effective since July 1st, 1935 and registers both engineers and architects.

California: The Registration Law provides for civil engineers only. This state is very active in its prosecutions and in four outstanding cases, licenses have been revoked and heavy fines imposed.

Recommendations

1. *"Engineer"* It is recommended that this Society unite with State Societies to bend all efforts to restrict the word "engineer" to those licensed or registered.

Efforts should also be made to prevent the use of the term "engineer" or "engineering" in corporate or firm names. A good example of how this can be done is the revision of the New York Act.

2. *Classification*: Classification of engineers leads to much difficulty and the states having these classifications should make efforts to remove them as is being done in New Jersey, and in any state where new acts are being proposed, classification should be eliminated.

3. *Enforcement*: As a whole, enforcement of the registration acts in all the states has been a farce. Registration Acts can only be effective and respected if rigid enforcement is adhered to. All the states should co-operate in this respect. One has but to turn to the medical and legal professions to see what effect rigid enforcement has.

4. *Legislation*: State societies should carefully watch the activities of their legislatures while in session. It has been the experience of your Legislative Chairman that Legislation inimical to the cause of engineers is submitted and is passed before engineers know anything about them. Then follows much effort to have this legislation revised which is often unsuccessful.

5. *State Societies*: One of the problems in formation of a state society is determining whether to take over existing societies or to form a new society. It is the recommendation of the chairman of your committee that societies should be formed after the registration acts have been passed, following the pattern of the Pennsylvania State Society. This prevents many conflicts in cases where previous members are not subsequently registered.

6. *Construction*: It is the feeling of many engineers that provisions should be made that those in charge of construction of engineering works should be limited to licensed professional engineers in the same manner as design is limited. It is hoped that such provisions would avoid a collapse such as recently occurred in New York City.

7. *Co-operation*: It is suggested that our society should co-operate with national societies of other professions, such as Law, Medicine, Architects and Accountants, for their mutual benefit. Much good could be accomplished in this direction. Thus, the American Bar Association, at its annual convention held in Boston on August 27th, 1936 approved a Resolution restricting practice before governmental departments to attorneys, favoring the Wagner Bill, S. 2944 of the 74th Congress which was so bitterly opposed by our society and the American Society of Certified Public Accountants. Certainly a conference between the American Bar Association, our society and the accountant's society would accomplish much good and would avoid public conflict.

It is suggested that if it is at all possible to combine our Legislative Committee with the Committee on Law and procedure of the N.C.S.B.E.E., much good could be accomplished as it appears that the efforts are duplicated. Thus, the joint committee could report back to each society and there would be no conflicting reports.

8. *Membership*: Because of the youth of our society and because of the efforts of the Legislative Committee to spread itself out over the entire United States, there are many members of the Legislative Committee who are not members of our society. Efforts should be made either to have these members become members of our society or appoint in their places, members of our society, where possible.

9. *Reciprocal Registration*: Efforts should be made to provide reciprocal registration in each state so as to avoid any inconvenience. Engineering is not limited to state borders but is national in character. It is readily seen that engineers do not go to distant places very often and as engineers become more matured, it is very difficult for them to pass written examinations. While the acts do provide for a short time in which engineering can be practiced without registration, this time limit is so short as to be useless.

10. *Rosters*: It is urged that all state boards issue rosters. It is further suggested that the year book of the State of Wisconsin be followed because of its excellent make-up, as previously outlined.

11. In states having a small number of engineers, it is recommended that where license laws are to be passed, that the law cover engineers, architects and surveyors. This makes for harmony and avoids any complications between architects and engineers.

Your Chairman wishes to thank all the members of his committee and the various officers of the society for their co-operation. The year has been an excellent one and, in his opinion, engineering registration has made progress.

PUBLIC RECOGNITION 1935-1936

(*Continued from page* 11)

graphs. The second item has received the next highest number of lines. It is also of interest to note that the item to conduct a campaign to stimulate engineering leadership has received the third highest number of lines, together with a large number of photographs.

There is appended to this report a more detailed break-down of the publicity coverage by cities and the breakdown of coverage by items of duties.

For the most part the publicity obtained, shown in the tables, has been due to the efforts of the state societies. Conferences with several well-known publicity men have convinced me that the simplest and easiest method of obtaining publicity is through the local newspapers. Therefore it is advisable that each state society appoint one man to take care of its publicity and represent the state society in the Public Relations Committee. This is in accord with the views of Engineer Steinman.

In the campaign to educate the public to recognize the professional status of the engineer it is most necessary at this time that the engineer himself be convinced that he is a professional man. All the publicity in the world will not establish the engineer unless he himself feels positive of his professional standing. It seems in order that a campaign should be started within the Society to educate its members to a feeling that they are professional men. It is desirable that this campaign should be extended to the engineering schools in order to reach the new men who are going into the profession. Therefore there should be a co-ordination between the activities of the Professional Relations Committee and the Public Relations Committee.

It seems also that the chairman of the Public Relations Committee should be located in the locality of national headquarters since it is most difficult to work away from the scene of activity. At the same time the Society should retain on a part-time basis the services of a professional publicity agent to advise on the type of news which has the highest press value and the type of coverage which may be obtained.

To stimulate state and local activity, the National Society should establish a prize for the state society which has obtained the greatest publicity for the year. This prize need not have any monetary value and can be just a certificate of award. For example, if such an award were in vogue this year, the Ohio State Society would be its recipient.

The Public Relations Committee should set up a co-ordinated campaign plan either on a yearly basis, or an integration on a longer term, preferably not more than five years. In this plan there should be some method of stimulating articles by engineers about engineering for publication in non-technical magazines to reach the public. Such a program can be stimulated by awards by the state societies to the member of its society who has had published the best article for the year, and by the National Society to that member of a state society who had published the best article.

It will be well for the committee and the Society to keep in mind that it should build up its press campaign gradually in order that the public may become accustomed to the claims of the engineering profession. Too much publicity at once may cause a reversion of feeling among the public and the other professions.

FEDERAL RELIEF PROGRAMS

(*Continued from page* 12)

not only for the people employed, but Professional Engineers, Architects, organizations and material and equipment concerns who must be saved so as to progress properly when relief work is over. Also the entire community benefits in obtaining a Project which has been sorely needed, but impossible of other financing.

In its early days, the W. P. A. was faulty in many ways other than as a means of getting men and women off direct relief. The early projects were only "how many men," and considered not at all the value of the project.

The question of the Project is being more carefully considered now.

The projects now being obtained are very much better but the cost is excessive, and with the improvement of Projects much work that should accrue to contracting agencies and professional practice is being wiped out.

In review, it might be said that the only agency which we have observed that can be acknowledged as obtaining justifiable results, at all commensurate with the money being spent is P.W.A.

It is giving relief employment.

It is giving worthwhile Projects.

It is giving work to the Professional Man, the Contractor, Material Man and Equipment Man.

These at a Justifiable cost.

The W.P.A. could be brought under the justifiable heading if its rates were revamped, competent men brought to administrative posts and projects limited in scope, so that they are minor in size and do not jeopardize the future of our great private construction agencies and professions.

It also hampers in its labor and construction requirements the Professional Engineer in refusing to permit him to apply his ingenuity, training and experience to prosecute the work in the most efficient manner.

New York

It is very difficult to separate one's self from professional activities and activities resulting from an official position. Within a year or two after the depression had affected the construction industries of the country, the City and State of New York were confronted with the difficulty of financing extensive construction programs. Particularly in the City of New York, it was found almost impossible to finance the usual construction programs affecting new highways, new sewerage systems and new public buildings, schools and hospitals. In consequence of this financial condition, the local administrations ceased to authorize work, which caused a laying off of some thousands of engineers engaged in the municipal service of the City of New York. Private industries had also almost ceased the construction of new work, with the result that the City of New York found thousands of engineers without employment and many without any financial resources.

A relief program was developed which engaged the services of small numbers of engineers. The formation of the Governmental agencies of the Public Works Administration absorbed some more of these idle engineers, but upon the authorization by Congress of the Works Progress Administration, which went into effect on July 1, 1935, many thousands of engineers were given the opportunity to work upon betterments and developments in the City and State of New York. The salaries that were paid by the W.P.A. were much below the normal rates of pay for such work, but as the W.P.A. was operated because of the necessity for relief, the engineering profession had to endure the many restrictions that had been imposed. Repeated representation by the State Society to the administrators of the City and the State W.P.A. produced remedial results and considerable increases in pay, which restored to a noticeable degree the morale of the profession.

It may be noted that the President of the United States approved the expenditure of over $300,000,000 in the City of New York and that more than half this sum was expended upon works within the City. This W.P.A. program has placed nearly 250,000 men at work and has resulted in the construction of many betterments carried out under the supervision of the City agencies.

Through the Public Works Administration activity, grants were made to the City for 74 projects, amounting to nearly $130,000,000. Without this aid the City would not have been able to meet the urgent demands for new schools, new subways, new docks and other improvements indispensable to the City's progress and development.

The Housing Administration has caused the demolition of more than 900 buildings in the City of New York, and has sponsored the erection of two important developments which are nearing completion and which will house 6,000 persons in modern, sanitary apartments. The construction industry has unquestionably been benefited by the vast amount of material that was required in the construction of these projects under the many Federal grants.

It has been felt generally that while Federal aid has been most important in reducing the privations to which the engineering profession was subjected, the profession would prefer the gradual return to construction work through privately operated agencies.

The skilled labor has received for its work the prevailing rate of wages, but has been employed at considerably less than full time. The engineering profession, on the other hand, has been generally employed for nearly full time, but at rates considerably less than were obtained in private industry and in the municipalities of the State.

Without the aid of the Federal Government in financing these construction programs, chaos would probably have resulted. With the aid of the Federal

Government many thousands of men have been given a restricted livelihood. These men generally hope for a betterment of their financial condition through the re-establishment of the normal channels of trade and commerce.

* * *

Supplementing this report is that received from the Albany Chapter which is representative of up-state New York.

In 1934, at the inception of the Federal relief, this Chapter endeavored to obtain the number of unemployed engineers (including non-chapter members) in this county. From over 300 requests we received three replies asking for assistance in securing a relief position, all of whom were promptly but temporarily placed. There were, no doubt, others who secured such work independently of our society, although there existed a verbal agreement whereby any assignments of engineers to engineering positions should have the approval of a duly authorized officer of the Chapter. This agreement was in effect, so successful, that we were unable to meet all the demands that were made. In all, I would estimate that at no time was the number of unemployed engineers in this community in excess of 5% to 10% of the total resident therein.

In 1935 this Chapter also secured directly through our own initiative, two positions for licensed engineers with the Federal Emergency Administrator of Public Works at Washington, D. C., and could have secured more if the men were available.

From time to time we have been requested to supply engineers for temporary positions and have been unable to do so.

In so far as the planning of the projects for which Federal grants are made available that must be done by the sponsor, who must employ a competent engineer or engineers. His plans receive the closest scrutiny from the particular state agency that has jurisdiction over that type of project, and they must bear his seal. Federal money is not available for the planning of these projects, and therefore, engineers in public and private practice must have benefited therefrom.

Relative to the execution of these projects our experience has been that red tape, delays, arbitrary rules and rulings, and restrictions because of hours and rates of pay for skilled and unskilled labor, have caused loss of time to the sponsor as well as additional expense to the contractor. In one case the sponsor reported that constantly changing regulations were embarrassing, and another reported lack of cooperation because of the inflexibility of rules, and another reported considerable loss of time because conditions encountered at the site were not as originally supposed, and could not be recognized as they existed. Three contractors reported that they were unable to secure the proper kind of mechanics, and another reported he was unable to secure the required number of mechanics to complete his job on time.

Conclusions are: (for Albany County, N. Y.) that relief most certainly has been secured not only for engineers but for mechanics and workers as well; that the planning of these projects is in competent hands and that engineers in private and public practice have been benefited therefrom. We have no facts to present relative to the effect on recovery and therefore cannot make any conclusions.

The execution of these plans seems to be the only phase which might require more thorough cooperation in order to prevent loss of time and money.

FLOOD CONTROL ACTIVITIES

(*Continued from page* 13)

the Resolution on Flood Control and Soil Conservation have been distributed.

Editors of 23 leading newspapers are interested and cooperative, publishing the material supplied by the committee and adding to it their own editorials endorsing this activity of the Professional Engineers.

A reference library on water control matters has been assembled at the headquarters of the committee in Bridgeport, Connecticut, articles for the public press written and published, meetings and congresses have been held, speakers furnished, and a general interest of all citizens in the question from an engineering standpoint has been aroused.

From the President of the United States down, favorable interest has been shown in our endeavors.

Leaders in all fields have endorsed our efforts and adverse criticism has been conspicuous by its complete absence.

The committee is encouraged by the response to its activities, to continue its energies to elevate this scientific engineering combination of water control projects above the rank of a political football, and remove it from sectional, party and pork barrel politics and place it in the hands of engineers and technicians who alone are the ones with the knowledge, training, and ability to handle it, and combine all the factors and elements pertaining thereto in the order of their importance to the virility of the country and the future of the American Nation.

Members and representatives of the committee attended the World Power Conference, September 7-12, 1936, and the Up-Stream Engineering Conference, September 21-25, 1936, and contacted some of the leaders in National Water Control.

At a meeting in Washington, D. C., September 21, 1936 of your National Committee, the pro and cons of the situation were thoroughly discussed. It later met with Dr. Hugh Hammond Bennett and Engr. Morris L. Cooke as guests of the District of Columbia Society of Professional Engineers.

While no definite action was taken at that meeting, the thought was that the Professional Engineering Flood Control and Soil Conservation Committees should be fully organized in each State as active, working bodies which would be or become familiar with their individual problems. That through their local efforts and their concerted efforts as part of the National Committee, the Professional Engineers might bring to pass the desired unified control under a central National Coordinating Engineering Authority.

It was decided that a Uniform National Society Resolution should be drafted through the committee that would be acceptable to all State Societies and their committees. That all other engineering societies, associations, groups and clubs be invited to endorse the resolution and cooperate and support our efforts in this matter in behalf of our country, as the duty of the entire profession.

With unity of action and mutual support of the State Committees and the National Committee, it was felt that a great service could be rendered to the Nation and its States by the National Society of Professional Engineers by tying in the professional engineers in advisory and active capacities in all phases of the water control question, federal or state, up-stream or down-stream, conservation or development, and preventive or protective.

The ultimate goal necessary for arresting the devastation and desolation of the country is still the same, a Centralized Engineering Control above state divisions, periodical elections, partisan appointments, etc., with full power to properly allocate funds and plan, develop, maintain, and operate an integrated water control system for the entire country and answerable only to the Supreme Executive, Legislative, and the Judiciary powers of the Nation.

The Professional Engineers have the power to bring this about if they will, but it must have to be fully successful, earnest and cooperative work in all states by the profession.

HARRY E. HARRIS, Chairman
National Committee on Flood Control
and Soil Conservation.
Bridgeport, Connecticut.

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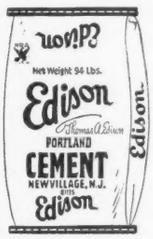

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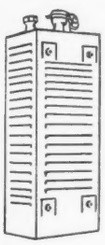

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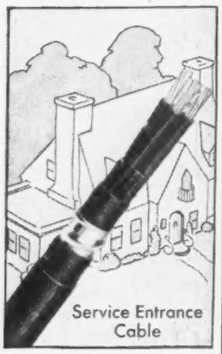
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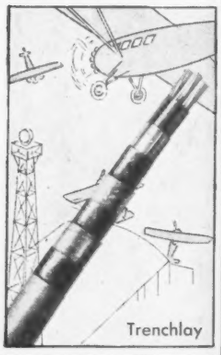
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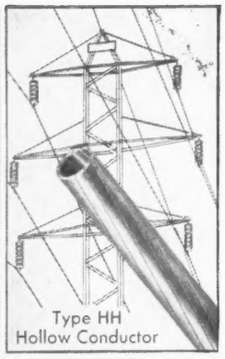
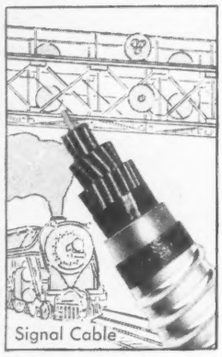
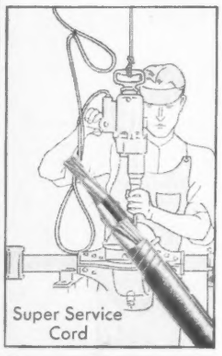
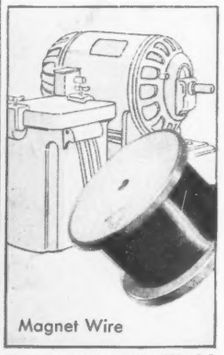

Type HH Hollow Conductor


Signal Cable

Oil-Filled Submarine Cable


Super Service Cord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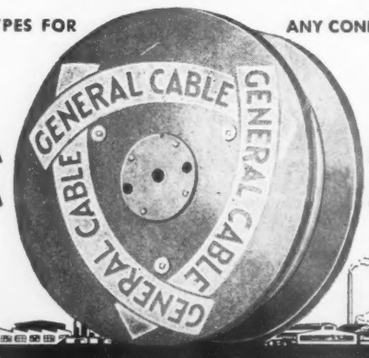

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